Norfolk Public Schools

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Learning in Place

Fifth Grade

Student Name

Social Studies Learning in Place Plans

Grade 5 Week 1

Textbook Access: https://student.efiveponds.com/ **Username:** NorfolkS **Password:** 23510S

Monday March 23	Tuesday March 24	Wednesday March 25	Thursday March 26	Friday March 27
Look at pg 146 in your textbook. Read the section titled Trouble In School. Answer the following questions on a sheet of paper. 1) Why were there different schools for African American children? What laws made that legal? 2) List 4 differences between Robert Russa Moton High School and other schools in Farmville, VA. 3) How did Barbara Johns take action in 1951? 4) Read this information and answer the question. *With other student leaders, Barbara Johns devises a scheme to get the principal out of the building and trick teachers into having a student assembly. Barbara urges the 400 students to join her in a student strike. The students agree and walk out. They refuse to attend school for two weeks.* Was Barbara Johns justified in breaking the rules and holding a student strike? Why or why not?	Look at pg 147. Read the section The Laws Must Change. Answer the following questions on a sheet of paper. 1) What was the name of the Supreme Court case that Barbara Johns (Davis v. County School Board of Prince Edward) and other cases became a part of? 2) What did the 1954 Supreme Court declare in the ruling of Brown v. Board of Education? 3) What does the following statement mean? *"Separate but equal is unconstitutional in public education."* 4) Explain the difference between the terms desegregate and integrate. 5) Look at the picture of the Barbara Johns statue. In 3-4 sentences explain what you think her quote means and why the artist chose to surround her with other people in the statue.	Find the red box and section titled What Was Massive Resistance on pg 147. Read the section and answer the following questions on a sheet of paper. 1) What were Massive Resistance laws? 2) Harry F. Byrd, a senator from Virginia led the Massive Resistance movement in Virginia. What did he do to keep schools from integrating in the fall of 1958? 3) Look at these statements and answer the question. ○ Virginia's government established a policy of Massive Resistance, which fought to "resist" the **desegregation** of public schools. ○ Some schools, including schools in Norfolk, were closed to avoid **desegregation**. ○ Months later, the policy of Massive Resistance failed, and Virginia's public schools were finally **integrated**. What effect do you think the closing of schools had on the education of students in Norfolk? Respond with 2-3 sentences.	Use pg 147 and the statements from question number 3 yesterday to help you complete the cause and effect graphic organizer on the Civil Rights Movement in Virginia. In this graphic organizer you will identify how Brown V. Board of Education Supreme Court case led to Massive Resistance in Virginia and eventually the integration of public schools.	In 1-2 paragraphs summarize the process of desegregation in Virginia. Remember a complete paragraph has a topic sentence, details, and conclusion. Use **all** of the words listed below in your summary. ○ Segregation ○ Desegregation ○ Integration ○ Barbara Johns ○ Brown v. Board of Education ○ Unconstitutional ○ Massive Resistance ○ Harry F. Byrd, Sr.

Social Studies Learning in Place Plans

Grade 5 Week 2

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Monday March 30	Tuesday March 31	Wednesday April 1	Thursday April 2	Friday April 3
Senator Harry F. Byrd was the leader behind the Massive Resistance Movement in Virginia in the 1950s. Prior to that he was a Governor that created policies that helped Virginia. Read his biography passage on pg 146 -147 and answer the questions that follow. 1) Look at the timeline next to the biography. What information is included? Why did the author include this on the page? 2) Would you say Harry F. Byrd was good with money and finances? Justify your answer using evidence from paragraph one of the biography. 3) Why would it be important for the state to not borrow money to build and fix all the roads in Virginia at once? 4) Based on paragraph 2, what do you think the Pay-as-you-go Policy was? How did this help Virginia?	Use a sheet of paper to answer all questions. 1) Look at the pictures and headings on page 151 of your textbook. Make a prediction about Arthur Ashe. What do you think his contribution is to the history of Virginia? 2) Read paragraph 1. What challenges did Arthur Ashe face when he was younger? 3) Read Bringing Home the Trophies. What accomplishments did Arthur Ashe have? What did he have to do to make those accomplishments happen? 4) Read Life Off the Court. How did Arthur Ashe continue to contribute to society after he stopped playing a sport? 5) How do we remember Arthur Ashe today?	Use a sheet of paper to answer all questions. 1) Make a prediction. Why do you think the author created the heading The Lawmakers for pages 152-153. What can we expect to learn about? 2) Read the biography passage on Oliver Hill. What did he do that made him a Civil Rights leader? 3) During what court case did Oliver Hill work as a lawyer? 4) Review the three pictures and captions around the Oliver Hill passage. How do these pictures help you understand the text?	Use a sheet of paper to answer all questions. 1) Look at the headings on pg 153. What two men are the topic of this page? 2) Read about A. Linwood Holton, Jr. As you read, write down the following information: o Job o Beliefs o How did he help Virginia? 3) Look at the caption and photograph of Holton and his daughter. Why do you think he chose to send his children to the schools discussed? 4) Read about L. Douglas Wilder. As you read, write down the following information: o Job o Accomplishment 5) How did Wilder devote his life to Virginia?	Create a graphic organizer to show you know the contributions of each of the following people. Illustrate each person with a portrait or symbol to represent their contribution. o Harry F. Byrd Sr. (positive and negative) o Oliver W. Hill o Arthur Ashe, Jr. o Linwood Holton, Jr. o L. Douglas Wilder Person / Contribution / Illustration or Symbol

Social Studies Learning in Place Plans

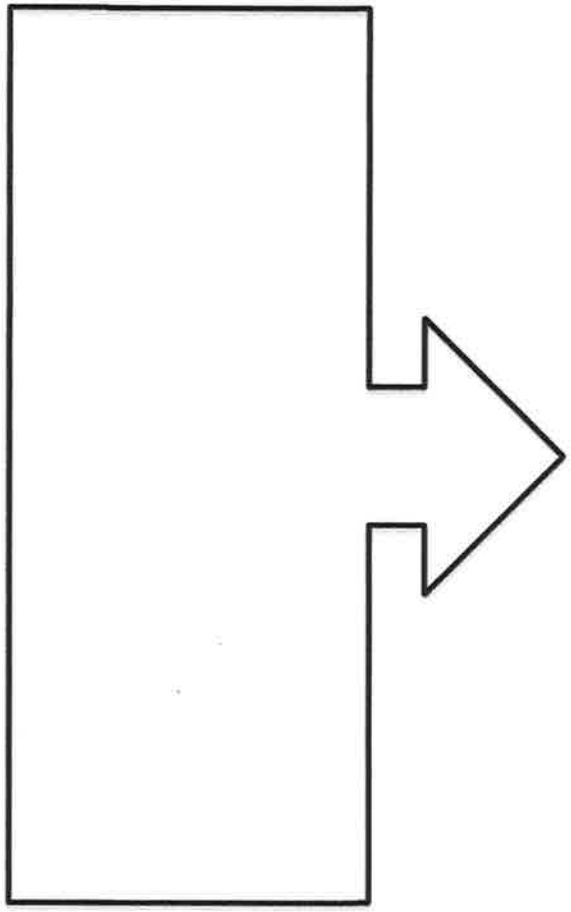
Grade 5 Week 3

Textbook Access: https://student.efiveponds.com/ **Username:** NorfolkS **Password:** 23510S

Monday April 6	Tuesday April 7	Wednesday April 8	Thursday April 9	Friday April 10
Use a sheet of paper to answer all questions. 1) Read the heading and first paragraph on pg 158. Why does the author compare our government to a three-legged stool? 2) Read The Legislative Branch. What groups of people are part of the Legislative Branch? 3) What are the duties of the Legislative Branch?	Use a sheet of paper to answer all questions. 1) Read the first paragraph on pg 159. Who is the head of the Executive Branch? 2) What are the duties of the governor and the Executive Branch? 3) What happens if the governor does not agree with a new law that have been written? 4) Read The Head of State. What famous historical figures have been governor of Virginia?	Use a sheet of paper to answer all questions. 1) Read The Judicial Branch on pg 159. What are the duties of the Judicial Branch? 2) How does the Judicial Branch help with laws? 3) What people are part of the Judicial Branch? 4) Read and explain the chart on page 159. What is the state's highest court?	Create a graphic organizer to describe the powers held by each of the three branches of the government and list the people/positions held in each branch. Branch | Duties | Position | | | | | | | | | | | |	Create a conversation, cartoon strip, or readers theater to explain the following information about each branch of Virginia's government: ○ Duties ○ Positions: Person or groups of people that are a part of branch

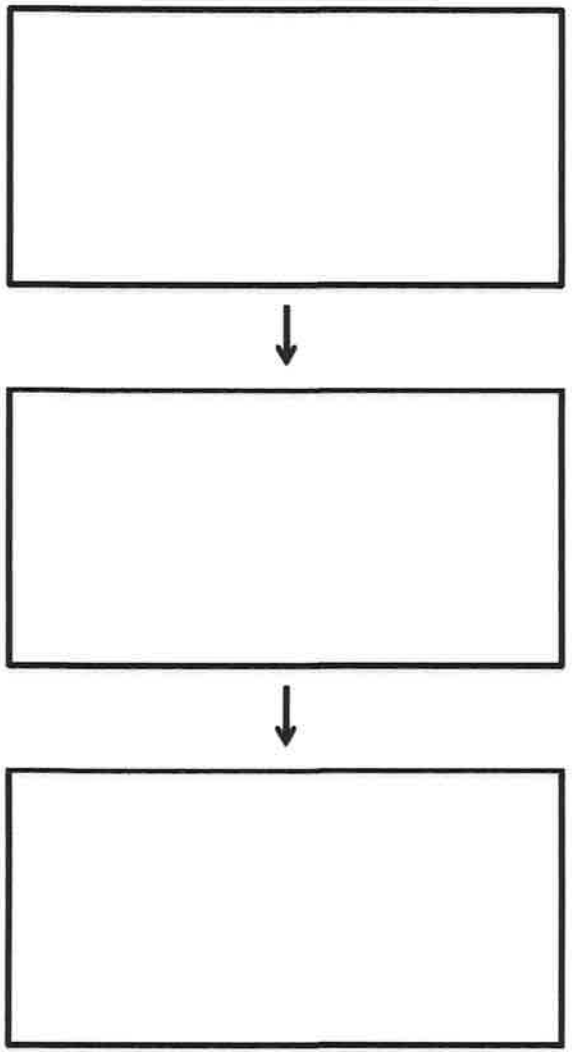
Civil Rights Movement in Virginia
Causes and Effects

Causes of
Brown v. Board of Education



Brown v. Board of Education ruled "separate but equal" public schools are unconstitutional.

Virginia's Response



NPS Learning in Place
Mathematics
Grade 5

	Monday	Tuesday	Wednesday	Thursday	Friday
Week 1	Circles Study Guide	Practice Problems 5.10	Triangle Study Guide	Probability Study Guide	Practice Problems 5.15
Week 2	Practice Problems 5.16	Stem and Leaf Plots Re-teaching	Stem and Leaf Plots Practice	Graphing and Statistics Practice 1-9	Graphing and Statistics Practice 1-10
Week 3	Statistics Study Guide	Practice Problems 5.17	Median, Mode and Range Re-teaching	Median, Mode and Range Practice	Median, Mode and Range Review Cards

5.10 Study Guide

Circles

Learning Goals

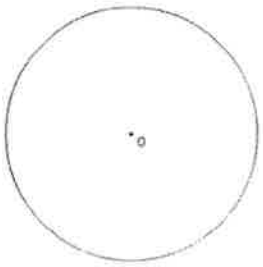
5.10 **The student will identify and describe the diameter, radius, chord, and circumference of a circle.**

Vocabulary

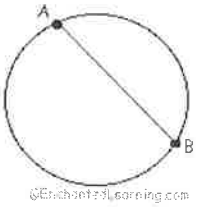
Circle - A set of points on a flat surface (plane) with every point an equal distance from a given point called the *center*.
Chord - A line segment that extends between any two unique points of a circle
Circumference – The distance around the edge of a circle
Radius - A line segment that extends between the center and the circumference of the circle
Diameter - A special chord that goes through the center of a circle.

Examples and Explanations

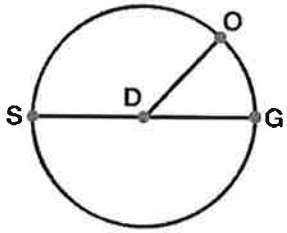
Circles are named for the center point.



A **chord** can connect any two points a circle. Chords are line segments. This chord is $\overline{AB}$.



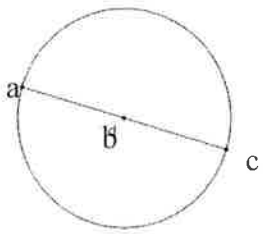
The **radius** line segment that extends between the center and the circumference of the circle The radii in this circle are $\overline{DS}$, $\overline{DG}$ and $\overline{DO}$



The radius is half the diameter. ($r=\frac{d}{2}$)

The **circumference** of a circle is the perimeter of the circle. *It is equal to about three times the diameter. ($c \approx 3d$) It is equal to about six times the radius. ($c \approx 6r$)*

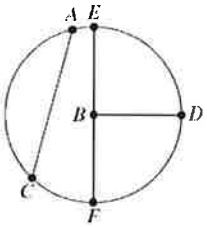
The **diameter** is a special chord. It passes through the center of the circle. The diameter of this circle $\overline{AC}$.



The diameter is equal to twice the radius. ($d=2r$)

Sample Questions

1. Point B is the center of the circle shown.



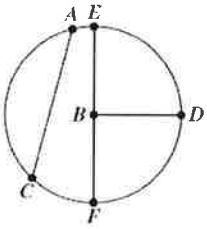
Which of the following best describes $\overline{BD}$?

A Chord
B Radius
C Diameter
D Circumference

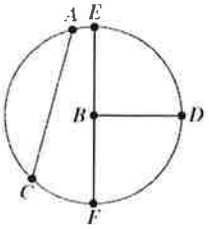
2. Which statement about circles is true?

A The radius is twice the diameter
B The circumference is three times the radius
C The diameter is twice the radius
D The circumference is twice the diameter

3. Which line segment represents the diameter of the circle below? Record your answer in the box.



4. What point is used to name the circle below?

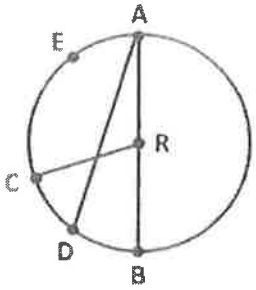


A point A
B point B
C point F
D point D

5.10 The student will identify and describe the diameter, radius, chord, and circumference of a circle.

1 In the figure below, point R is the center of the circle. Which of the following *best* describes $\overline{AB}$?

A circumference
B diameter
C radius
D center

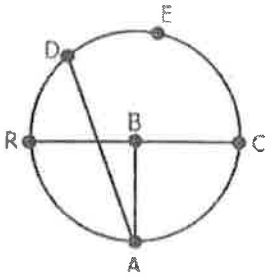


2 Point A is the center of the circular wheel below. Which of the following *best* describes $\overline{AT}$?

F radius
G diameter
H chord
J point

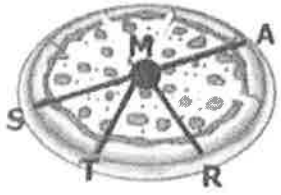
3 Point B is the center of the circle below. Which *best* describes $\overline{DA}$?

_____



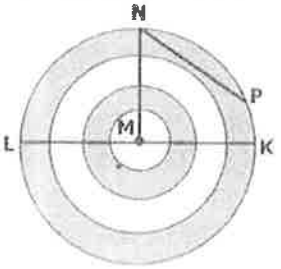
4 Point M is in the center of the pizza. Which represents the diameter of the pizza?

A $\overline{SM}$
B $\overline{SA}$
C $\overline{TM}$
D $\overline{RM}$



5 Point M is the center of the circular target below. Which represents the radius?

F $\overline{KL}$
G $\overline{KM}$
H $\overline{NP}$
J $\overline{MN}$



5.12/5.13 Study Guide

Angles and Triangles

Learning Goals

5.12 **The student will classify and measure right, acute, obtuse, and straight angles.**

5.13 **a) classify triangles as right, acute, or obtuse and equilateral, scalene, or isosceles; and**

b) investigate the sum of the interior angles in a triangle and determine an unknown angle measure.

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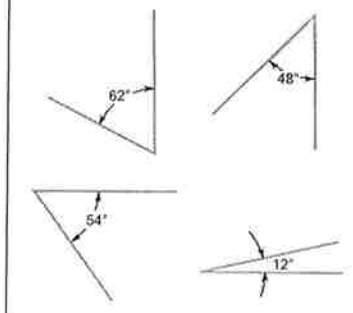
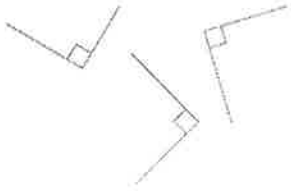
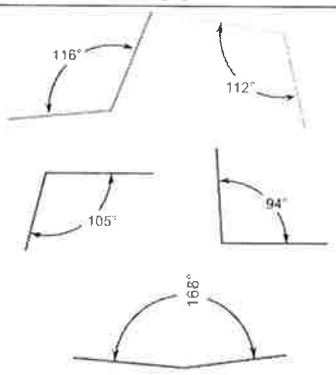
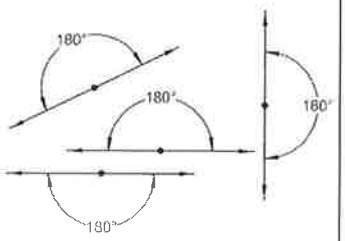
Vocabulary

Protractor - An instrument used in measuring or drawing angles
Vertex - A point where two or more straight lines meet
Degree – A measure for angles. There are 360 in a full rotation.
Right Angle - An angle which is equal to 90°.
Straight Angle - An angle that looks like a straight line; It measures 180°
Acute Angle - An angle which measures *less than* 90°
Obtuse Angle - An angle which measures *more than* 90°
Right Triangle - A triangle that contains one right angle.
Scalene Triangle - A triangle that has **no** congruent sides.
Acute Triangle - A triangle that contains three acute angles
Obtuse Triangle - A triangle that has one obtuse angle
Isosceles Triangle - A triangle that contains **two** congruent sides
Equilateral Triangle - A triangle in which **all** sides are congruent

Examples and Explanations

An angle is two line segments or rays that meet at a common endpoint (vertex). Angles are classified into four categories:

Acute	Right	Obtuse	Straight
< 90°	= 90°	>90°	=180°
			

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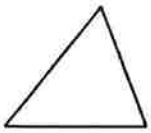
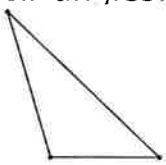
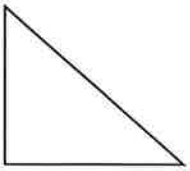
Triangles are classified by their angles.



Acute Triangle
(three acute angles)



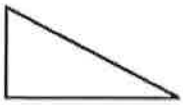
Obtuse Triangle
(contains an obtuse angle)



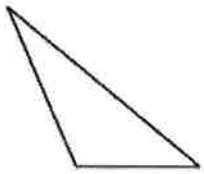
Right Triangle
(contains a right angle)

Triangles can also be classified by their line segments.

A **scalene triangle** has *no congruent sides*. None of the sides are of equal length.

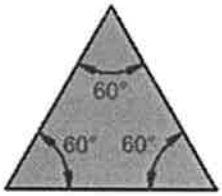


Right Scalene Triangle



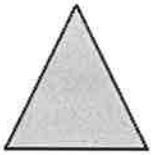
Obtuse Scalene Triangle

An **equilateral triangle** sides are *all congruent*. They are all the same length.

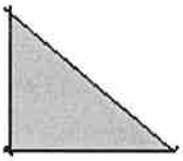


Acute Equilateral Triangle

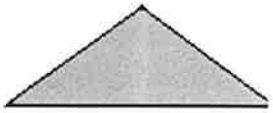
An **isosceles triangle** is a triangle that contains *two congruent sides*.



Acute Isosceles Tirangle

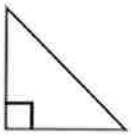


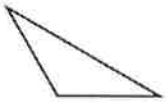
Right Isosceles Triangle

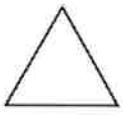


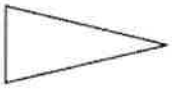
Obtuse Isosceles Triangle

1. Which of the figures can be classified as both an acute and an isosceles triangle?

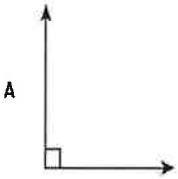
A 

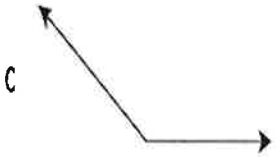
C 

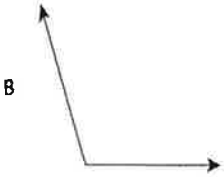
B 

D 

2. Which angle is closest to 90°?

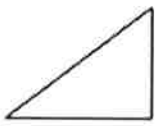






3. Which figure appears to be an equilateral triangle?

A



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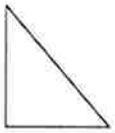
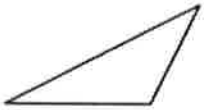


B



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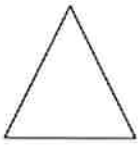
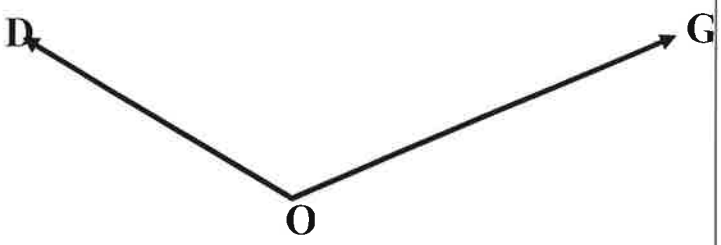


4 Look at the angle below.

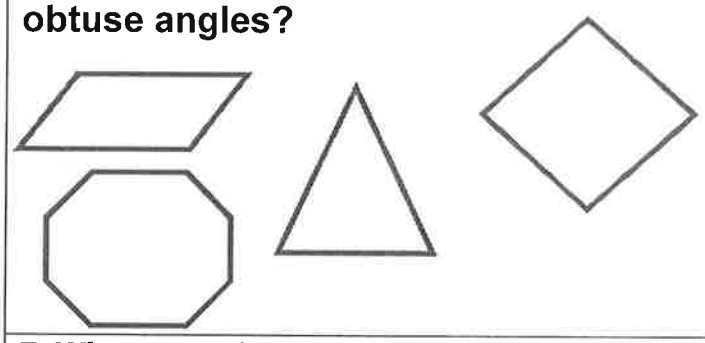


What kind of angle is shown? _____

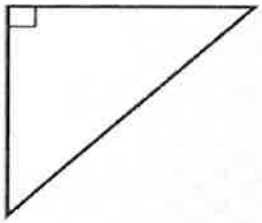
The measurement of the angle is closest to

A. 35 degrees B. 90 degrees
B. 180 degrees D. 135 degrees

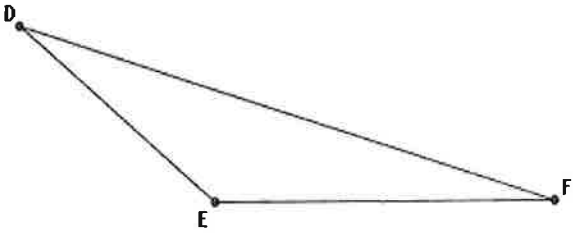
5 Which of the figures contains only obtuse angles?



6 What type of triangle is shown?

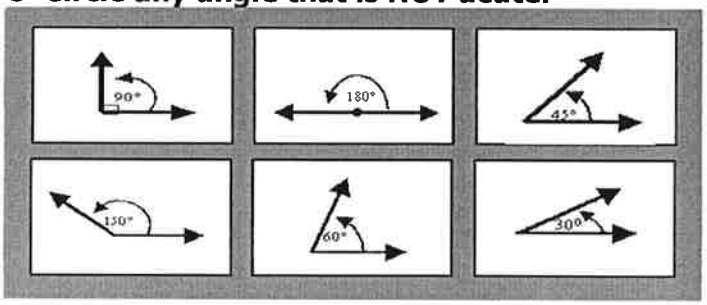


7 What type of triangle is shown?

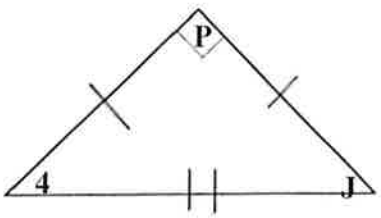


A right
B scalene
C obtuse
D acute

8 Circle any angle that is NOT acute.



9. What is the measurement of angle J in triangle PKJ?



A. 45 degrees
B. 90 degrees
C. 135 degrees
D. 180 degrees

10. Sophia needs to draw a triangle for art class. The triangle needs the following characteristics.

- It has one 90 degree angle
- It has two acute angles
- It has no equal sides

What kind of triangle is Sophia going to draw?

A. An acute scalene triangle
B. A right isosceles triangle
C. An obtuse equilateral triangle
D. A right scalene triangle

5.15 Study Guide
Probability

Learning Goals

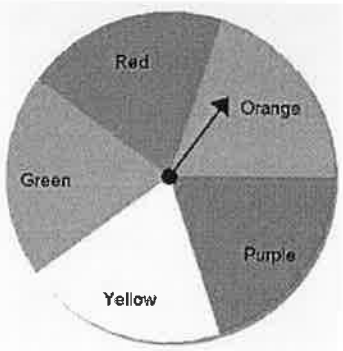
5.15 The student will determine the probability of an outcome by contrasting a sample space or using the Fundamental (Basic) Counting Principle.

Vocabulary

Probability: the chance of an event occurring
Likelihood: the probability of an event occurring
Outcome: result of an experiment
Impossible: an event is impossible if it has a probability of 0
Unlikely: not likely to occur
As likely as: equally likely
Equally likely: outcomes that have the same probability
Likely: seeming like certainty
Certain: an event is certain to occur if it has a probability of 1
Sample Space: A sample space represents all possible outcomes of an experiment. The sample space may be organized in a list, chart, or tree diagram.

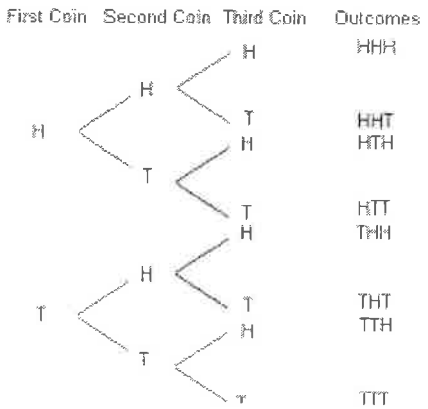
Examples and Explanations

The **possible outcomes** of the spinner are GREEN, YELLOW, PURPLE, ORANGE, and RED. There are 5 possible outcomes. The probability of the spinner landing on a particular color can be expressed in words and as a fraction.



Event	Probability	
	Word	Fraction
Landing on GREEN, YELLOW, PURPLE, ORANGE, or RED.	Certain	1
Landing on any color *except* GREEN	Likely	$\frac{4}{5}$
Landing on GREEN as related to landing on RED	Equally likely	$\frac{1}{5}$ and $\frac{1}{5}$
Landing on ORANGE	Unlikely	$\frac{1}{5}$
Landing on BROWN	Impossible	0

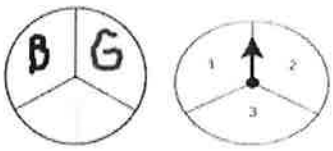
All of the possible outcomes of an experiment are called the **sample space.** A **tree diagram** can be used to determine the sample space. Here is a tree diagram for an experiment involving *flipping a coin three times*. The tree diagram shows all of the possible outcome



There are 8 possible outcomes. This is the sample space.
An **organized list or chart** can also show the sample space

1st Roll	2nd Roll	3rd Roll
Heads	Heads	Heads
Heads	Heads	Tails
Heads	Tails	Heads
Heads	Tails	Tails
Tails	Tails	Tails
Tails	Tails	Heads
Tails	Heads	Tails

Leland is playing a game with these spinners. He will spin the arrow on each spinner 1 time. Which tree diagram shows all of the possible outcomes?



A.

B.

C.

D.

There are 10 boys and 5 girls in the debate club at West Middle School. The principal randomly selects one student from the debate club to represent the school in a competition. What is the probability that the selected student is a boy?

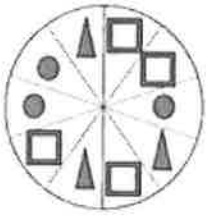
A. $\frac{1}{10}$

B. $\frac{1}{3}$

C. $\frac{1}{2}$

D. $\frac{2}{3}$

What is the probability that the spinner will land on the square?



A. 1/2, equally likely

B. 4/6, likely

C. 2/5, unlikely

D. 4/8, likely

On Poff Airline, passengers can choose meat, chicken, or vegetarian dinners. They can also choose coffee, soda or water to drink with their meals. Which diagram shows all of the possible combinations of types of meals and drinks?

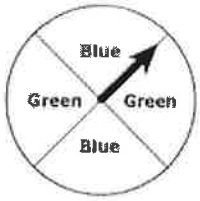
A.

B.

C.

D.

The spinner shown is divided into equal sections. What is the probability that the arrow will point to a green section in one spin?



A. $1/4$

B. $2/2$

C. $1/2$

D. $4/4$

I looking at the options at an ice cream store. I can pick one flavor, one topping and one syrup.

Flavors: Vanilla, Chocolate, Strawberry, Mint

Toppings: Sprinkles, M&Ms

Syrups: Fudge, Caramel, Marshmallow

If I randomly pick one flavor, one topping and one syrup, how many possible outcomes are there?

A. 8

B. 16

C. 24

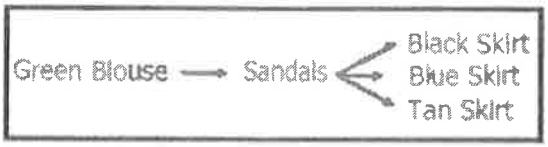
D. 48

5.15

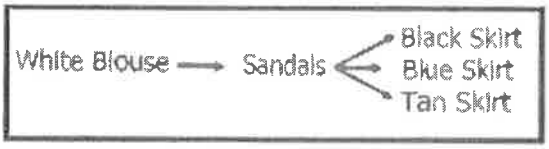
1 Meghan is choosing what to wear to school tomorrow. She must choose 1 blouse, 1 skirt, and 1 pair of shoes. Which tree diagram shows all possible outcomes for her to choose from?

Blouse Color	Shoe Type	Skirt Color
Green White	Sandals	Black Blue Tan

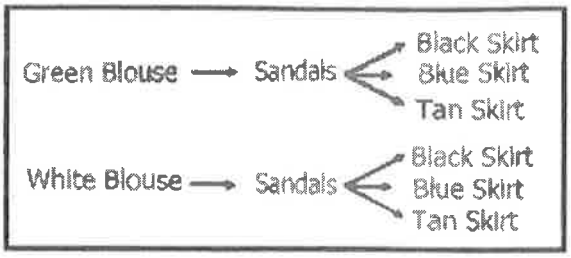
A



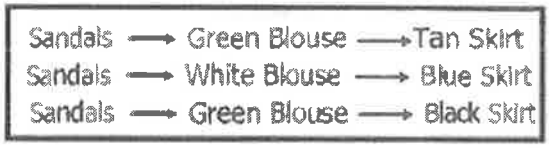
B



C

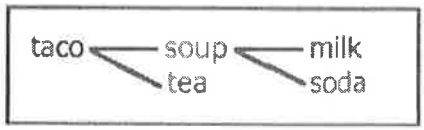


D

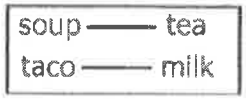


2 Lisa buys lunch at school. She can choose a taco or soup with milk, soda, or tea. Which tree diagram shows all the possible combinations that Lisa could choose?

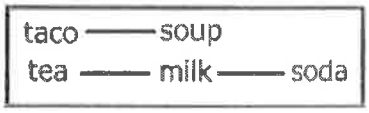
F



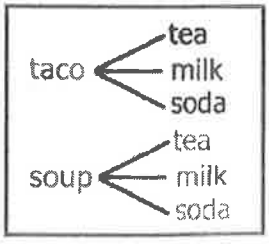
G



H



J



5 **Martin has black, blue, and white socks in his drawer. Which list shows all possible outcomes when Martin pulls two socks out of his drawer without looking?**

F	Black, Blue	White, Black	White, Blue	White, Black	Blue, Blue	Black, White
G	White, Blue	White, Black	White, White	Blue, Black	Blue, Blue	Black, Black
H	Blue, White	White, Black	White, White	Black, Black	Blue, Blue	Black, White
J	Blue, Blue	White, Black	White, Blue	Blue, White	Blue, Blue	Black, Blue

6 **The deli offers all customers a choice of tuna, turkey, or veggie sandwiches on wheat or white bread. Which lists all the possible choices?**

A	turkey white	tuna white	veggie white	tuna wheat	turkey wheat	veggie wheat
B	tuna white	veggie white	tuna wheat	turkey wheat	veggie wheat	
C	turkey wheat	veggie white	tuna wheat	turkey white	veggie wheat	veggie white
D	tuna wheat	tuna white	turkey wheat	veggie white	veggie wheat	

7 **The local radio station is giving away free concert tickets to one boy and one girl. The final draw is limited to the names listed in the chart. Make a list to show all the different possible combinations for the tickets.**

Boys	Bob	Ben	Dennis	Gary
Girls	Holly	Mary		

5.16

1 Kelly recorded the number of inches it rained for four months.

July: 7, August: 6, September: 4, October: 2

Which table shows this information?

A

Month	Inches of Rain
July	7
August	6
September	2
October	4

C

Month	Inches of Rain
July	7
August	6
September	4
October	2

B

Month	Inches of Rain
July	6
August	7
September	4
October	2

D

Month	Inches of Rain
July	6
August	4
September	7
October	2

2 The coach wrote down the number of points five players made in last week's game.

Ben: 12 Ed: 28 Sue: 19 Tom: 40 Joy: 20

Which chart shows this information?

F

Number of Points Scored				
Ed	Tom	Sue	Ben	Joy
28	40	19	12	20

H

Number of Points Scored				
Ed	Tom	Sue	Ben	Joy
28	40	20	12	19

G

Number of Points Scored				
Ed	Tom	Sue	Ben	Joy
28	40	12	20	19

J

Number of Points Scored				
Ed	Tom	Sue	Ben	Joy
28	40	19	20	12

3 The list shows the number of jeans sold at 11 stores.

71, 40, 74, 49, 51, 60, 59, 71, 40, 79, 69

Which shows the same information?

A

Stem	Leaf
4	0, 0, 9
5	1, 9
6	0, 9
7	1, 1, 4, 9

C

Stem	Leaf
7	0, 0, 9
5	1, 9
6	0, 9
4	1, 1, 4, 9

B

Stem	Leaf
4	0, 1, 9
5	1, 9
6	0, 9
7	0, 1, 4, 9

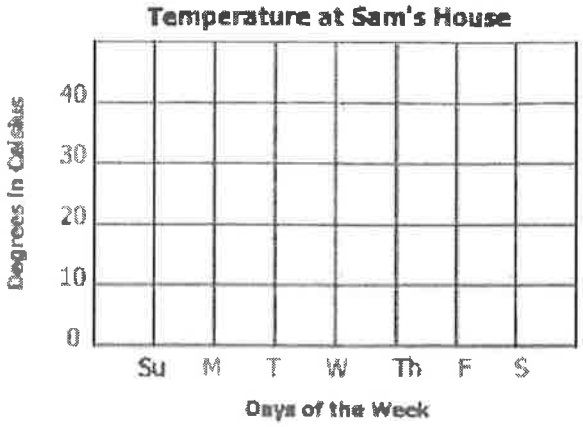
D

Stem	Leaf
4	0, 4, 0, 9
5	0, 1, 9
6	0, 9
7	1, 4, 1, 9

6 **Sam made this chart to show the temperature at his house for six days.**

Su	M	T	W	Th	F
20°C	30°C	40°C	30°C	25°C	45°C

Construct a line graph to show this information.

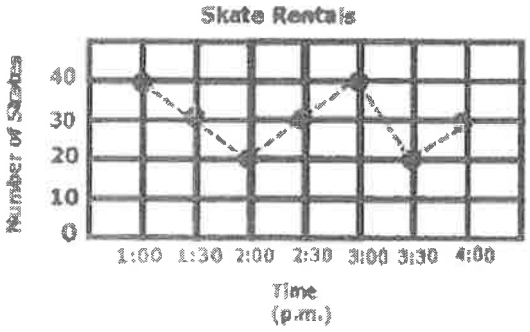


7 **Karl made a stem-and-leaf plot to show his math grades. Based on this information, which statement is true?**

Stem	Leaf
7	7 7 9
8	6 8 8
9	1 5 8 9 9

A Most of Karl's grades are in the 90s.
B Most of Karl's grades are in the 80s.
C Most of Karl's grades are in the 70s.
D Most of Karl's grades are in the 60s.

8 **This graph shows the number of skate rentals each hour for one day. How many more skates were rented at 3:00 than at 2:00?**



F 2 skates
G 10 skates
H 20 skates
J 40 skates

Name _____

Reteaching
18-4

Stem-and-Leaf Plots

A stem-and-leaf plot is a convenient way to organize data.

A school records the number of students absent each day. The records for a two-week period are shown in the stem-and-leaf plot on the right.	**Number of Students Absent Each Day** Stem | Leaf 1 | 2 5 6 9 2 | 1 4 7 8 3 | 0 3 KEY: 1|2 = 12

How do you read a stem-and-leaf plot?

1. Identify the stem for each data value.	The stems in this plot represent the tens digits 10, 20, and 30.
2. Identify the leaf for each data value.	The leaves in this plot represent the ones digits: 0, 1, 2, 3, 4, 5, 6, 7, 8, and 9.
3. Identify the key.	The key shows that each stem-leaf combination represents a two-digit number.

Read the following and complete the following questions.

A small card shop records the number of birthday cards sold each day. The record is displayed as the stem-and-leaf plot shown on the right.	**Number of Birthday Cards Sold Each Day** Stem | Leaf 2 | 1 5 6 7 8 9 9 3 | 0 3 4 | 2 2 3 4 9 KEY: 2|1 = 21

1. Using the key, what is the value of 3|0? _____

2. How many days are represented by the plot? _____

3. What is the least number of cards sold in one day? _____

4. What is the most number of cards sold in one day? _____

Name _____

Practice
18-4

Stem-and-Leaf Plots

For **1** through **3**, use the stem-and-leaf plot below. It shows the ages of the 17 people who used the outdoor pool from 6:00 A.M. to 7:00 A.M. on a Tuesday morning in the summer.

Ages (years)

Stem	Leaf
0	
1	1
2	3 9
3	
4	7
5	5 7 7 9
6	5 5 6 6 7 8 9
7	0 1

Key: 7 | 1 means 71

1. How many swimmers were younger than 30?

_____

2. Which age group was swimming the most at this hour?

_____

_____

3. Why are there two 5's as leaves next to the stem 6?

_____

_____

4. Make a stem-and-leaf plot of the data below.

Prices of couch pillows (dollars)			
10	75	20	20
37	24	21	9

5. Refer to the stem-and-leaf plot in Exercise 4. Which stem (or stems) have the most leaves?

A 70 **B** 9 **C** 20 **D** 30

Graphing & Statistics Practice

Part 1: Vocabulary
Write the letter of the correct definition on the line before each word.

_____ 1. mean

_____ 2. median

_____ 3. mode

_____ 4. range

_____ 5. vertical axis

_____ 6. horizontal axis

_____ 7. line graph

_____ 8. stem-and-leaf plot

_____ 9. data

A. information, facts, or numbers that describe something

B. a data display that organizes data points by separating each into a stem and a leaf

C. the difference between the greatest and least values in a set of data

D. x axis

E. the middle value or the average of the two middle values in an ordered set

F. the value in a data set that occurs most often

G. a type of graph in which points representing data pairs are connected by line segments.

H. y axis

I. the sum of the values in a data set divided by the number of values; Also known as "average"

Part 2: Multiple Choice

1. **The serving speed (miles per hour) of some of the tennis players who participated in a tennis tournament are 128, 129, 130, 131, 132, 133, 134, 135, 136, 137 and 138. Which of the stem and leaf plots represents the data correctly?**

A

Serving speed of Tennis Players

Stem	Leaf
125	3 4
130	0 1 2 3 4 5 6 7 8

Plot 1

C

Serving speed of Tennis Players

Stem	Leaf
12	8 9
13	0 1 2 3 4 5 6 7 8

Plot 2

B

Serving speed of Tennis Players

Stem	Leaf
1	28 29
13	0 1 2 3 4 5 6 7 8

Plot 3

D

Serving speed of Tennis Players

Stem	Leaf
12	2 3
13	0 1 2 3 4 5 6 7 8

Plot 4

6. What is the median of the following set of data?

44, 67, 34, 56, 65, 33, 34, 65, 67, 42, 56

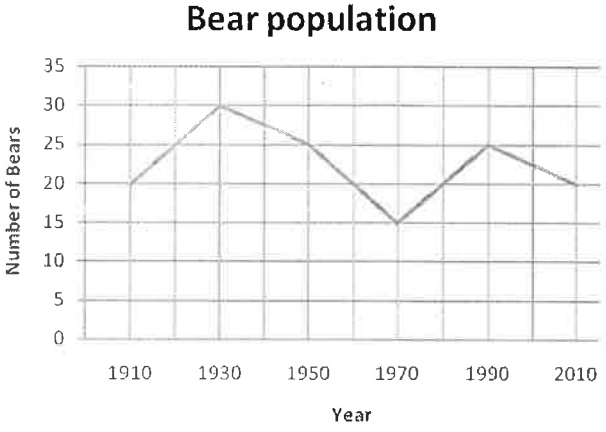
A 33
B 44
C 50
D 56

7. What is the mode of the following set of data?

14, 32, 23, 25, 23, 22, 32, 23, 18, 14, 15

A 14
B 22
C 23
D 25

Use the graph to the right to answer questions 8 – 9.



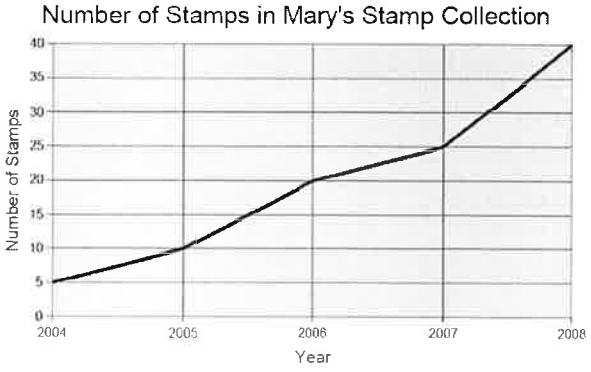
8. Between which years was there the greatest decrease in bear population?

A 1910 - 1930
B 1930 - 1950
C 1950 - 1970
D 1990 – 2010

9. During which year was the bear population at its highest?

A 1930
B 1970
C 1990
D 2010

Use the graph to the right to answer the next question.



10. If this trend continues, how many stamps might Mary have in the year 2009?

A 25
B 35
C 40
D 50

5.17 Study Guide
Statistics

Learning Goals

5.17
a) describe mean, median, and mode as measures of center;
b) describe mean as fair share;
c) describe the range of a set of data as a measure of spread; and
d) determine the mean, median, mode, and range of a set of data.

Vocabulary

Mean – The sum of the values in a data set divided by the number of values. Also known as "average".
Median – The middle value or the average of the two middle values in an ordered set.
Mode – The value in a data set that occurs most often.
Range – The difference between the greatest and least values in a set of data.

Examples and Explanations

The **mean** is computed by adding all of the numbers in the data together and dividing by the number of elements contained in the data set. [Mean represents a *fair share* concept of the data.]

Example :
Data Set = 2, 5, 9, 3, 5, 4, 7
Number of Elements in Data Set = 7
Mean = (2 + 5 + 9 + 7 + 5 + 4 + 3) / 7 = 5

The **median** of a data set is dependant on whether the number of elements in the data set is odd or even. First reorder the data set from the smallest to the largest then if the number of elements are odd, then the Median is the element in the middle of the data set. If the number of elements are even, then the Median is the average of the two middle terms.

Example : Odd Number of Elements
Data Set = 2, 5, 9, 3, 5, 4, 7
Reordered = 2, 3, 4, 5, 5, 7, 9
Median = 5

Example : Even Number of Elements
Data Set = 2, 5, 9, 3, 5, 4
Reordered = 2, 3, 4, 5, 5, 9
Median = (4 + 5) / 2 = 4.5

The **mode** for a data set is the element that occurs the most often. It is not uncommon for a data set to have more than one mode. This happens when two or more elements accur with equal frequency in the data set.

Example : Single Mode
Data Set = 2, 5, 9, 3, 5, 4, 7
Mode = 5

Example : 2 modes
Data Set = 2, 5, 2, 3, 5, 4, 7
Modes = 2 and 5

Example : 3 modes
Data Set = 2, 5, 2, 7, 5, 4, 7
Modes = 2, 5, and 7

The **range** for a data set is the difference between the largest value and smallest value in the data set. First reorder the data set from smallest to largest then subtract the first element from the last element.

Example :
Data Set = 2, 5, 9, 3, 5, 4, 7
Reordered = 2, 3, 4, 5, 5, 7, 9
Range = (9 - 2) = 7

1. What is the mean (average) for the following set of data?

6, 4, 22, 21, 37

A 18
B 20
C 24
D 31

2. What is the mode for the following set of numbers?

6, 10, 8, 7, 9, 8, 9, 9, 7

A 6
B 7
C 8
D 9

3. What is the range for the following set of numbers?

21, 12, 13, 12, 24, 11, 19, 20

A 11
B 12
C 13
D 24

4. What is the median for the following set of numbers?

6, 10, 9, 4, 8, 7

A 7
B 7.5
C 8
D 8.5

5. Use the stem-and-leaf plot below to determine the mode for the following data.

Books Checked Out From the Library

Stem	Leaf
1	2 6
2	4 9
3	2 2 3 5 6 8

Key: 1|2 = 12

A 12
B 22
C 24
D 32

6. What is the mode of the following data?

15, 12, 16, 12, 13, 15, 12, 16

A 12
B 13
C 15
D 16

7. Zoe has scored 75, 80, and 92 on her math quizzes. What is the minimum score she needs on her next quiz to have a mean of 85?

A 85
B 93
C 95
D 97

8. The points that Amelia scored for each game are shown.

325, 198, 262, 301, 275, 229

After her seventh game, the range of Amelia's scores was 129 points. How many points did she score in the seventh game?

9. What does the number 16 represent in the data below?

15, 16, 22, 19, 24, 16, 15, 21, 16, 26

10. Karla earned the following scores on her math quizzes:

75, 91, 87, 95, 89, 96, 90

What is the mean of Karla's scores?

5.17

1 Which is true?

A Mean is a measure of center.
B Mean is the piece of data that lies in the middle.
C Mean is the piece of data that occurs most frequently.
D Mean is the spread of a set of data.

2 This data shows the points Meghan scored in five basketball games.

30, 20, 15, 25, 30

What does 25 represent?

F mean
G median
H mode
J range

3 Which is true?

A Range is fair share.
B Range is the piece of data that lies in the middle.
C Range is the piece of data that occurs most frequently.
D Range is the spread of a set of data.

4 The data shows the test scores Ed got on his last seven spelling tests.

95, 100, 85, 100, 75, 95, 100

What does 100 represent?

F mean
G median
H mode
J range

5 The table shows the number of fish a pet store manager has in four aquariums.

Aquarium	1	2	3	4
Number of Fish	12	10	15	16

The manager will take all the fish out of the aquariums and put an equal number of fish back into each aquarium. What does the number of fish he will put in each aquarium represent?

A sample space
B fair share
C product
D pattern

Name _____

Reteaching
18-8

Median, Mode, and Range

The median, mode, and range are each numbers that describe a set of data.

Here is Eduardo's survey of how many books his friends read last month.

What are the median, mode, and range of Eduardo's survey?

Book Reading	
Friend	**Number of books read**
Jean	2
Raul	3
Sally	8
Jonathan	5
Haley	6
Kristen	3
Owen	1

Median: The median is the middle number in a set of data. To find it:

1. Arrange the data in order from least to greatest.
2. Locate the middle number.

1, 2, 3, 3, 5, 6, 8

↑ middle number = 3

The median number of books read is 3.

Mode: The mode is the data value that occurs most often. To find it:

1. List the data. 1, 2, 3, 3, 5, 6, 8
2. Find the number that occurs most. 3

The mode of the books read by Eduardo's friends is 3 books.

Range: The range is the difference between the greatest and least values. To find it:

1. Identify the greatest and least values. 8 and 1
2. Subtract the least from the greatest value. $8 - 1 = 7$

The range of the books read by Eduardo's friends is 7 books.

1. Find the median of this data set: 12, 18, 25, 32, 67. _____

2. Find the mode of this data set: 123, 345, 654, 123, 452, 185. _____

3. Find the range of this data set: 24, 32, 38, 31, 61, 35, 31. _____

Name _____

Practice
18-8

Median, Mode, and Range

1. Find the range of this data set: 225 342 288 552 263. _____
2. Find the median of this data set: 476 234 355 765 470. _____
3. Find the mode of this data set:
   16 7 8 5 16 7 8 4 7 8 16 7. _____
4. Find the range of this data set:
   64 76 46 88 88 43 99 50 55. _____
5. **Reasoning** Would the mode change if a 76 were added to the data in Exercise 4?

_____

_____

The table below gives the math test scores for Mrs. Jung's fifth-grade class.

76	54	92	88	76	88
75	93	92	68	88	76
76	88	80	70	88	72

Test Scores

6. Find the mean of the data. _____
7. Find the mode of the data. _____
8. Find the median of the data. _____
9. What is the range of the data set? _____
10. Find the range of this data set: 247, 366, 785, 998.

    A 998 **B** 781 **C** 751 **D** 538

11. **Explain It** Will a set of data always have a mode? Explain your answer.

_____

_____

A

The 5th grade students received the following grades on their geometry snapshot:

60, 100, 92, 100, 88, 76, 80, 65, 88, 79, 83

What is the range of these scores?

B

The 5th grade students received the following grades on their geometry snapshot:

60, 100, 92, 100, 88, 76, 80, 65, 88, 79, 83

What is the mode of these scores?

C

The 5th grade students received the following grades on their geometry snapshot:

60, 100, 92, 100, 88, 76, 80, 65, 88, 79, 83

What is the median of these scores?

D

E

Look at the stem and leaf plot.

Stem	*Leaf*
1	8, 8, 9
2	4, 6, 7, 8, 9, 9, 9
3	2, 2, 3, 4, 6, 8, 9
4	2, 2, 4, 4

What is the range of this data?

F

Look at the stem and leaf plot.

Stem	*Leaf*
1	8, 8, 9
2	4, 6, 7, 8, 9, 9, 9
3	2, 2, 3, 4, 6, 8, 9
4	2, 2, 4, 4

What is the mode of this data?

G

H

Look at the stem and leaf plot.

Stem	*Leaf*
1	8, 8, 9
2	4, 6, 7, 8, 9, 9, 9
3	2, 2, 3, 4, 6, 8, 9
4	2, 2, 4, 4

What is the median of this data?

I

J

During the first week in March, the following daily high temperatures were recorded:

32°F, 30°F, 40°F, 5°F, 40°F, 55°F, 77°F

What was the range of temperatures the first week in March?

Norfolk Public Schools
Science Learning in Place Plan – Grade 5

Week 1

Monday	Tuesday	Wednesday	Thursday	Friday
Grade Five Science Fusion Textbook Volume 1				
Read pages 106-107 ▪ **Draw, label, and describe** the essential structures and functions of animal cells. ▪ For animals, include the ***nucleus, cell membrane, vacuole,*** and ***cytoplasm.***	Read pages 106-107 ▪ **Draw, label, and describe** the essential structures and functions of plant cells. ▪ For plants, include the ***nucleus, cell wall, cell membrane, vacuole, chloroplasts,*** and ***cytoplasm.***	Read pages 106-107 ▪ Fill in the table on page 107 ***Comparing Plant and Animal Cells***	Read page 293 ▪ **Explain** the process of photosynthesis, using the following terminology: ***sunlight, chlorophyll, water, carbon dioxide, oxygen,*** *and* ***sugar.***	▪ **Explain** the role of adaptations of common plants to include ***dormancy, response to light,*** and ***response to moisture.***

Norfolk Public Schools
Science Learning in Place Plan – Grade 5

Week 2

Monday	Tuesday	Wednesday	Thursday	Friday
Grade Five Science Fusion Textbook Volume 1				
Read pages 228-233 ▪ Explain the difference between a ***structural*** and ***behavioral adaptation*** and give an example of each.	Read page 180. ▪ Name and describe two groups of plants (***vascular*** and ***nonvascular***). Give an example for each group.	Read page 181. ▪ Name and describe two groups of animals (***vertebrates*** and ***invertebrates***). Give an example for each group.	Read page 310. ▪ Underline the information that helps you understand the food web diagram on page 311. ▪ Complete page 314, *"Sum it Up"*, questions 1-7.	Read pages 272-273. ▪ List two ways humans influence the environment in a positive way and two ways humans influence the environment in a negative way.

Norfolk Public Schools
Science Learning in Place Plan – Grade 5

Week 3

Monday	Tuesday	Wednesday	Thursday	Friday
Grade Five Science Fusion Textbook Volume 1				
Review pages 228-233 from previous week. ▪ Pick two organism that you read about. Identify and explain 2 traits of each organism that allows them to survive in their environment.	Read pages 252-253. ▪ Compare and contrast the niche of the ***red-shoulder hawks*** and ***barred owls.***	Review pages 228-233. ▪ Explain how three different organisms use their adaptations to meet their needs.	Review pages 228 -223 ▪ Explain how the adaptations of 3 organisms help them to survive in their environment.	Read page 234. ▪ Explain different ways a frog interacts with its environment at different stages of its life cycle.

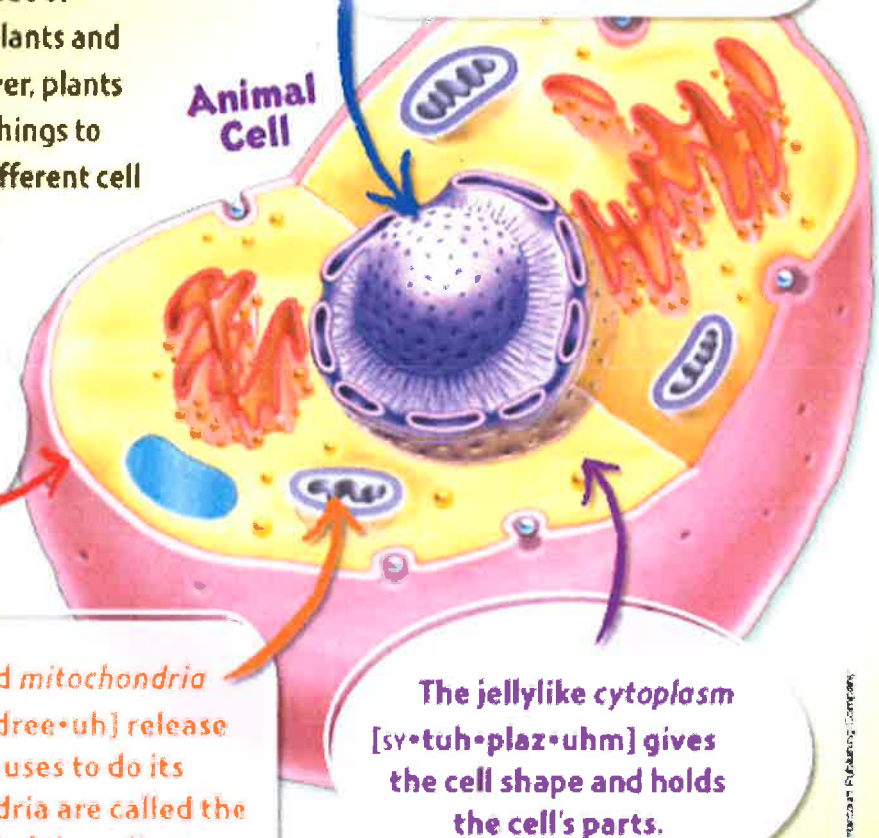
What Parts Do Cells Have?

It's a lot of work to keep a body alive! Cells have parts that do certain jobs. Read about the jobs of cell parts on these two pages.

Active Reading As you read these two pages, circle the cell parts that plants and animals have in common. Underline the cell parts that are different.

Plants and animals are made of cells. Many cell parts of plants and animals are the same. However, plants and animals need different things to stay alive. They have some different cell parts to meet these needs.

The **nucleus** is enclosed in a membrane and directs all the cell's activities. Making more cells, producing energy, taking in materials, and getting rid of wastes are all functions the nucleus controls.

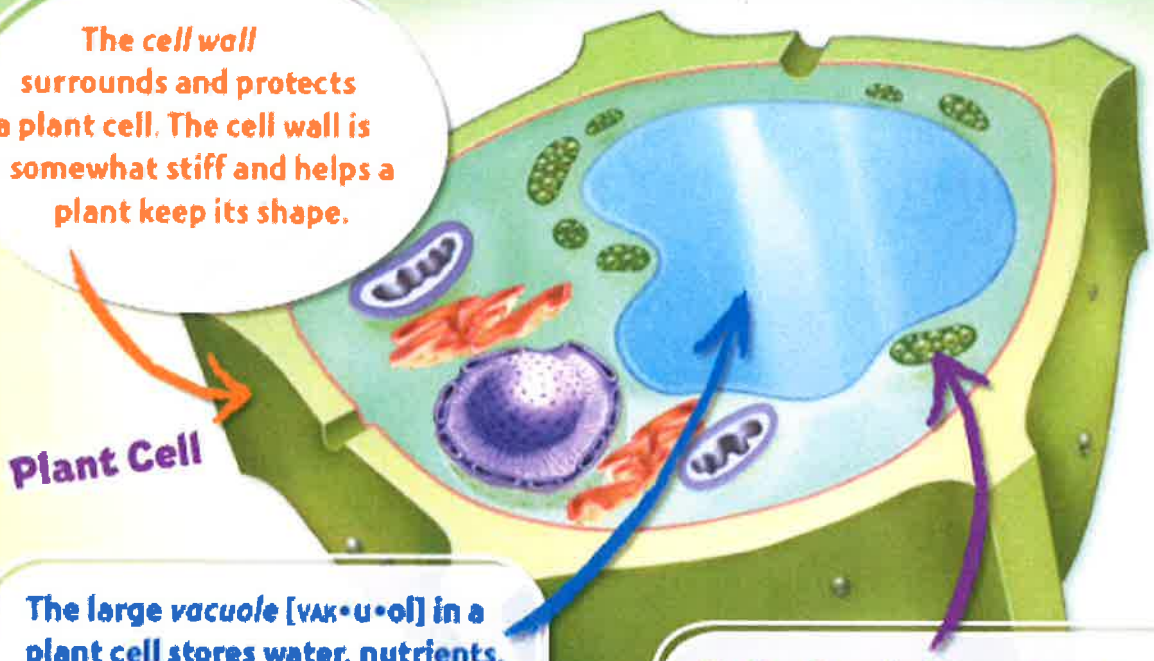


All cells have a **cell membrane** that surrounds the cell and controls what enters and leaves the cell.

Cell parts called *mitochondria* [my•tuh•KAHN•dree•uh] release energy the cell uses to do its jobs. Mitochondria are called the "powerhouses" of the cell.

The jellylike *cytoplasm* [sy•tuh•plaz•uhm] gives the cell shape and holds the cell's parts.

The *cell wall* surrounds and protects a plant cell. The cell wall is somewhat stiff and helps a plant keep its shape.



Plant Cell

The large *vacuole* [VAK•u•ol] in a plant cell stores water, nutrients, and wastes. Many animal cells have vacuoles, but they are much smaller than those in plants.

Each *chloroplast* [KLOHR•uh•plast] uses the energy from sunlight to make sugar. This sugar is food for the plant. Animals must take in food from their surroundings.

▶ Fill in the table to describe the parts found in cells.

Nucleus

Comparing Plant and Animal Cells

Cell Part	Plants, Animals, or Both	Function
Cell membrane	Both	
Nucleus		
Mitochondria		Release energy
Chloroplast	Plants	
Cell wall		Surrounds, protects cell

Mitochondria

Chloroplast

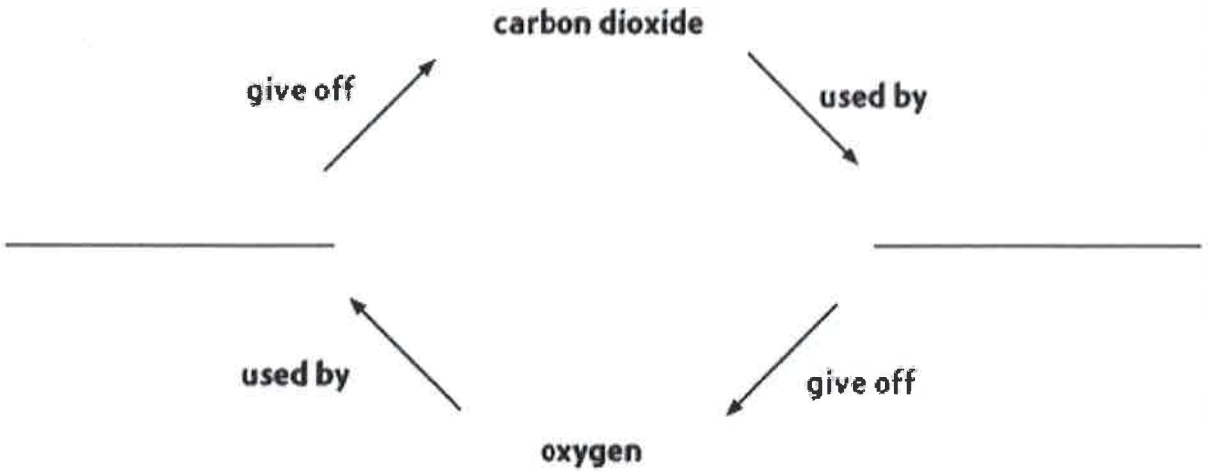
Photosynthesis

1. Carbon dioxide enters a plant through tiny holes in its leaves.
2. Water from the soil enters the plant through its roots.
3. Chloroplasts inside cells found in leaves and other green parts of the plant capture energy from sunlight.
4. Chlorophyll helps change carbon dioxide, water, and solar energy into sugar and oxygen.

The process by which plants and plantlike organisms make food is **photosynthesis** [foh•toh•SIN•thuh•sis]. Photosynthesis takes place with the help of a green molecule called **chlorophyll** [KLAWR•uh•fil]. Chlorophyll is found in structures within a plant's cell called chloroplasts. During photosynthesis, plants use the energy in sunlight to change water and carbon dioxide into sugars and oxygen. The oxygen is released from tiny holes called stomata on the plants' leaves. All of the oxygen we breathe comes from plants and plantlike organisms.

The Carbon Dioxide-Oxygen Cycle

Write the missing terms to complete the cycle.



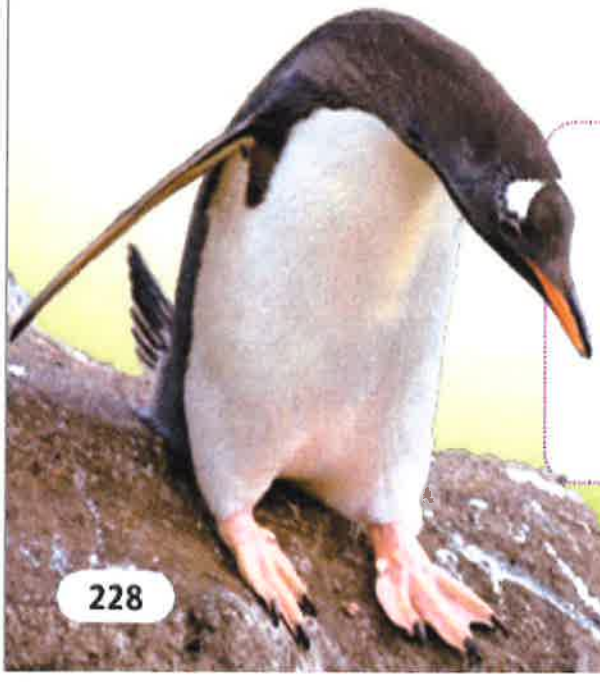
Form and Function

Why can penguins live in the Antarctic while most other birds can't? They have a layer of blubber to keep them warm!

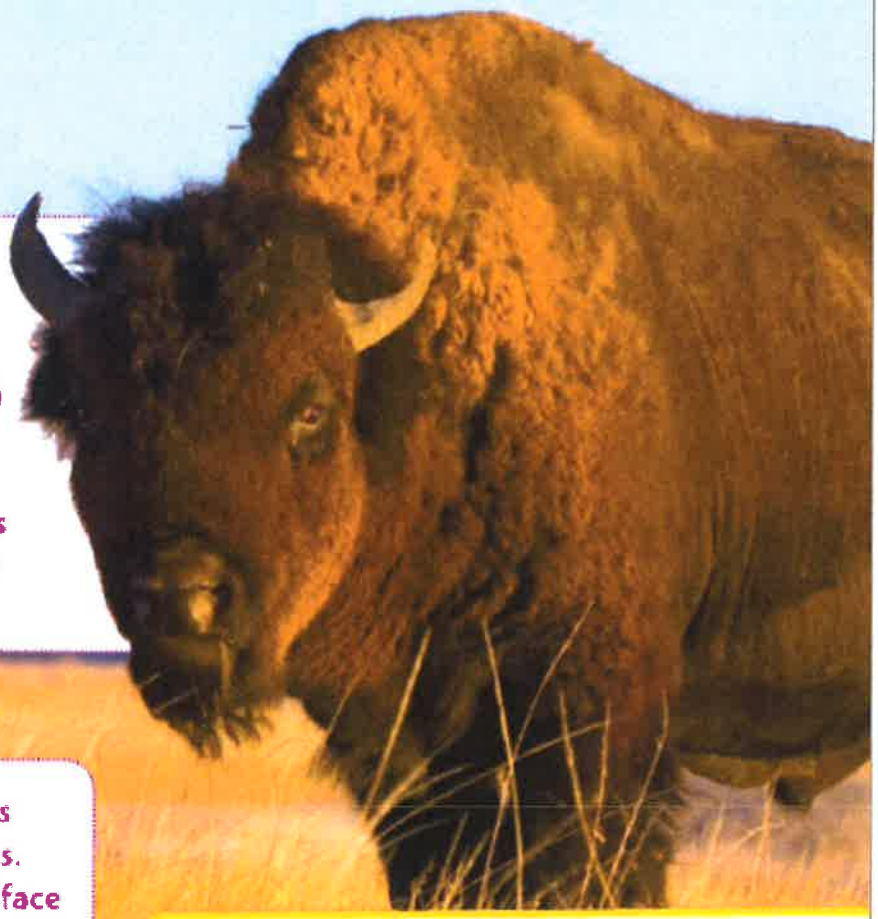
Active Reading As you read these two pages, underline the words and phrases that describe animal and plant adaptations.

Some adaptations are differences in the bodies of organisms. These are called physical adaptations. Organisms have physical adaptations that help them survive in different environments. When a plant or animal has a characteristic that enables it to survive in a way that other plants or animals cannot, the organism with the adaptation has an advantage. Consider how some of the organisms shown on these two pages are better able to survive in their environments than organisms that do not have these adaptations.

The eyes of this bird are covered with a thin, transparent eyelid that keeps the eye moist when the bird flies.



A penguin has many adaptations that allow it to live in an icy, wet environment. A layer of blubber under waterproof feathers keeps penguins warm. They also have wings shaped like flippers and webbed feet for swimming.



Bison have adaptations that allow them to live on prairies. They have horns they may use for protection and fur that keeps them warm during cold winters. Bison also have wide hooves that allow them to run very quickly on grasslands.

The sharp spines of a cactus are actually modified leaves. The spines have a small surface area that minimizes water loss. This cactus shown has a thick stem that holds water, which is another important adaptation in a dry desert environment.

▶ Choose an animal or imagine a new animal. Write a description of the environment in which the animal lives. Then describe the adaptations that allow the animal to live in that specific environment.

Eat or Be Eaten

Whether blending in or standing out, physical adaptations help organisms survive.

Active Reading As you read the next two pages, circle signal words that alert you to details about the main idea.

Some physical adaptations protect living things from being eaten. For example, roses have sharp thorns that help keep their stems from being eaten. Other physical adaptations help to keep an animal hidden. This type of adaptation is called *camouflage* [KAM•uh•flazh]. When green lizards hide in green grass, they are camouflaged.

Animals that hunt, such as eagles, have adaptations that help them catch food. Eagles have very good eyesight. They also have sharp claws on their feet, which they use to capture their food.

Many plants have adaptations that help spread their seeds. Some seeds can be carried by the wind. Other seeds are inside berries. When the berries are eaten, the seeds are carried to a new location.

Can you see the owl in this picture? The owl is camouflaged to look like bark.

The bright color of this rose attracts pollinators, but the thorns keep plant-eating animals away.

Catching Flies

Bright coloring on an animal is often a warning that the animal is dangerous. Many animals know that paper wasps, like the one shown below, have a painful sting. The black and yellow hoverfly doesn't have a stinger. It is completely harmless. But because the hoverfly looks like a wasp, animals will think twice before trying to eat it. This adaptation is called *mimicry*.

▶ Draw a line from the chameleon's tongue to the insect it would most likely eat.

Chameleons have many adaptations that help them catch insects. They have long, sticky tongues that capture an insect in the blink of an eye. They have eyes that move in all directions, helping them see not only food but also possible danger. Chameleons also have feet and a tail that wrap around branches, making them excellent climbers. With all of these adaptations, a tasty fly must look like a wasp to avoid being eaten by a chameleon!

On Your Best Behavior

The way living things act is called behavior. Some behaviors are adaptations that help animals survive.

Active Reading As you read the paragraph below, circle examples of instinctive behavior and underline exampes of learned behavior.

Some things that animals do seem to come naturally. Babies do not have to be taught how to cry. Spiders are not taught how to spin webs. Behaviors that animals know how to do without being taught are called **instincts**. Animals have to learn other types of behaviors. For example, a lion cub is not born knowing how to hunt. It learns to hunt by watching its mother. Raccoons learn to wash food by watching other raccoons.

Some bats are *nocturnal*. This means they are active at night and sleep during the day. This allows bats to hunt insects that are active only at night.

Many animals have behaviors that help protect them from predators. When an octopus is frightened, it releases ink into the water. If the octopus is being attacked, the animal attacking it will not be able to see, and the octopus can escape.

Each year, millions of snow geese migrate south in autumn and north in spring.

Some animals move to different locations at certain times of the year to find food, reproduce, or escape very cold weather. This instinctive behavior is called *migration*. Many birds, butterflies, and some bats migrate long distances.

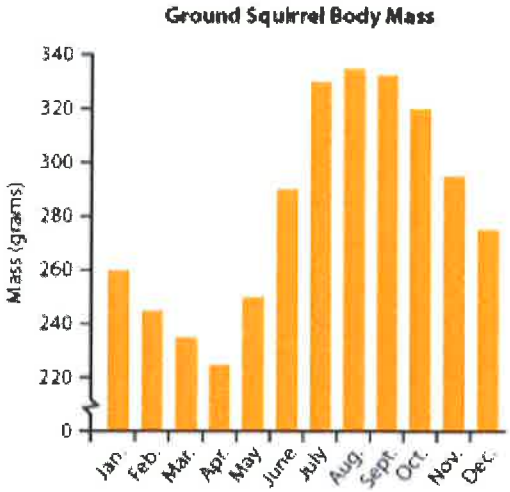
Other animals hibernate. *Hibernation* is a long period of inactivity that is like sleeping. But hibernation is not the same as sleeping. When an animal hibernates, its body processes slow down and it stays inactive for months. Can you imagine taking a three-month nap?

The way that animals act toward other animals of the same type is called *social behavior*. Honeybees have very complex social behavior. They communicate using movements called the "waggle dance." A bee that finds food will return to the hive and do a waggle dance. The pattern of the dance gives other bees a lot of information! The dance communicates which way to go, how far away the food is, how much food there is, and even what kind of food it is!

Do the Math!

Interpret Data in a Bar Graph

Ground squirrels hibernate. They must eat a lot during the spring, summer, and fall to store up enough energy to survive hibernation. Study the graph below.



About how much mass does a ground squirrel have in March?

_____

During which month do ground squirrels start to hibernate? How do you know?

_____

_____

Domain
Eukarya

Kingdom
Plantae

Plants and Animals

How many different plants and animals can you recognize? Plants and animals are both in Domain Eukarya, but they are grouped into separate kingdoms.

Active Reading As you read these two pages, underline the parts of the text that explain how plants and animals are classified.

There are more than 320,000 species of plants. Plants are made up of many cells and use sunlight to make food. Some plants are very large, while other plants may be tiny. Scientists classify plants according to the structures they have and how they use those structures to live.

Some plants have vascular tissue. Vascular tissue consists of long, narrow tubes that transport materials throughout the plant. Other plants just absorb the materials they need, like a sponge absorbs water.

Plants are also classified by the way they reproduce. Some plants produce seeds in fruits, while others produce seeds in cones. Some plants don't produce seeds at all! All of these characteristics are used to classify plants.

This conifer is a vascular plant. It produces seeds on cones, can grow tall, and lives for many years.

Mosses do not have vascular tissue. They grow low to the ground and absorb nutrients in a sponge-like manner.

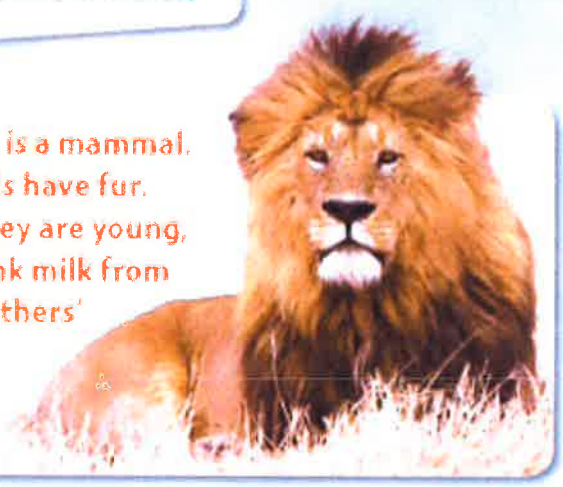
Some plants use flowers to reproduce. Flowering plants make up the largest number of species in Kingdom Plantae.

Kingdom
Animalia

Crabs are invertebrates, meaning they do not have backbones. They live on land and in water.

This frog is an amphibian. It begins life under water as a tadpole before growing into an adult frog that lives on land.

This lion is a mammal. Mammals have fur. When they are young, they drink milk from their mothers' bodies.



Birds have wings and feathers. Although a chicken cannot fly far, most other birds can.

Most animals are made of multiple cells and cannot make their own food. Animals are often divided into two main groups. Animals that have backbones are called vertebrates. Vertebrates include fish, birds, reptiles, amphibians, and mammals. Animals without backbones are invertebrates. Invertebrates include insects, worms, jellyfish, and sponges.

Vertebrates make up only about 5% of the animal population on Earth. Approximately 95% of Earth's animals are invertebrates!

Within these two main groups, animals are further classified according to their body structures, how they take in oxygen and digest food, and many other factors. What do you think some of these other factors could be?

Do the Math!

Use Fractions

Mammals account for about $\frac{1}{10}$ of all vertebrates. Birds account for about $\frac{1}{6}$ of all vertebrates. Together, what fraction of vertebrates is made up of mammals and birds?

_____

Food Webs

Like a spiderweb held together by many connecting threads, the paths in a food web show the feeding relationships among species in a community.

Active Reading As you read, underline the information that helps you understand the food web diagram.

You don't eat just one kind of food, and neither do organisms in food chains. Each consumer has a variety of choices when it comes to its next meal. A **food web** shows how food chains overlap. In other words, it shows what eats what. Look at the forest food web on the next page. Both the mouse and the insect eat parts of the pine tree or its seeds. A snake can eat a mouse or a salamander. All of these living things eventually become food for decomposers. Decomposers return nutrients to soil. These nutrients, in turn, are used by producers to make food.

Arrows in the web point in the direction that energy moves. Find the acorns and the mouse. Which way does the arrow point? It points from the acorns to the mouse. Energy moves from producer to consumer when the mouse eats the acorns.

Predators limit the number of animals below them in a food web. If snakes were removed from this forest food web, the number of mice would increase. More mice mean that more plants would be eaten. Eventually, the mice might run out of food and begin to die off. This would affect the hawks and other living things that eat mice. All of the organisms in a food web are interdependent.

▶ In the forest food web, trace two overlapping food chains that include the snake. Make the path of each food chain a different color.


red-tailed hawk
kinglet
oak acorns
pine-borer insect
corn snake
mouse
salamander
pine tree
fungi

Sum It Up!

When you're done, use the answer key to check and revise your work.

Fill in the missing words to summarize the main ideas of the lesson.

Energy Moves Through Ecosystems

Food Chains

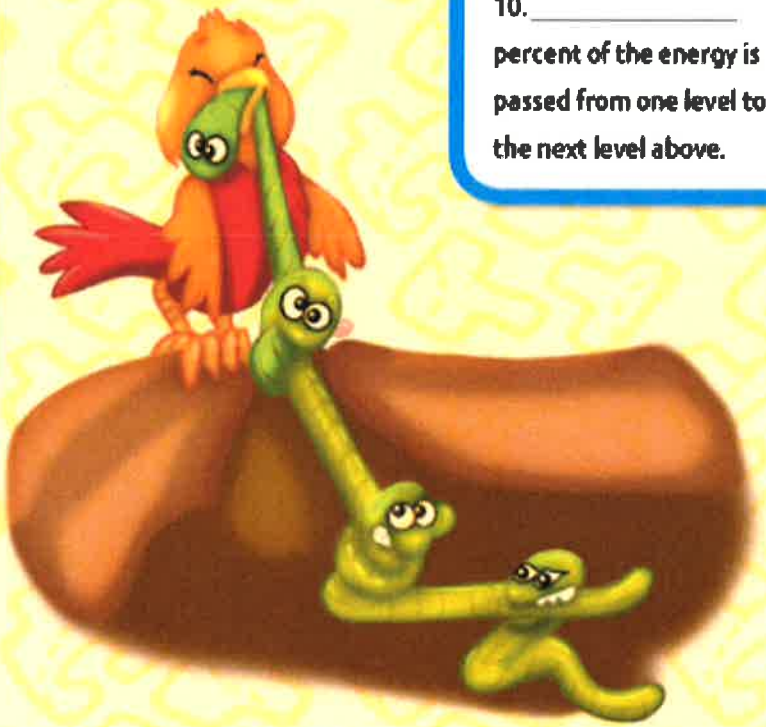
The first organisms in a food chain are 1. _____. Herbivores are the 2. _____-level consumers, and 3. _____ and 4. _____ are the second- and third-level consumers. 5. _____ are the final organisms in all food chains. They recycle materials by breaking down plant and animal remains, thereby returning nutrients to the environment.

Food Webs

A food web shows how food chains 6. _____. Arrows show the direction of 7. _____ transfer through the web.

Energy Pyramids

Most of the energy in an ecosystem is present in the 8. _____. At each level, organisms use 9. _____ percent of the available energy for life processes. Only 10. _____ percent of the energy is passed from one level to the next level above.



Answer Key: 1. producers 2. first 3. carnivores 4. omnivores 5. Decomposers 6. overlap 7. energy 8. producers 9. 90 10. 10

Humans Change the Environment

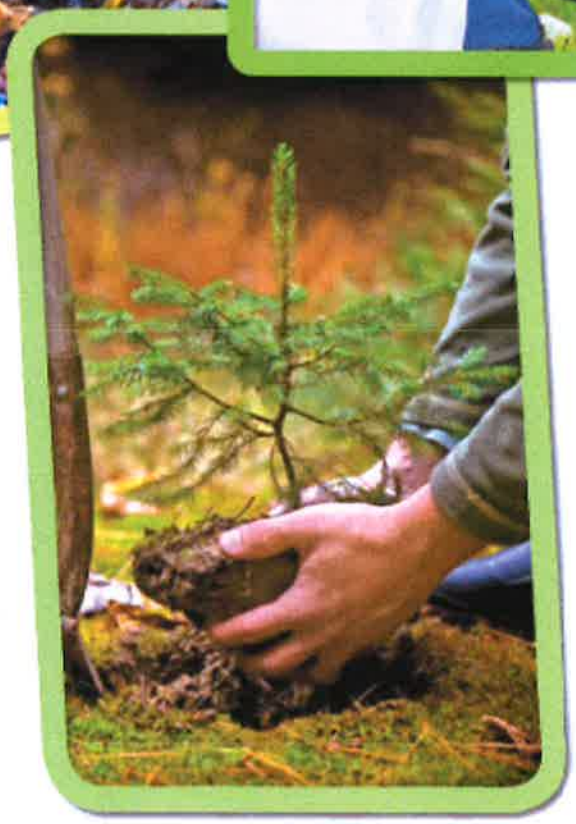
Humans are not outside of the environment, and we have a large impact on our ecosystems. The effects of humans on the environment can be both harmful and beneficial.

Active Reading As you read these two pages, draw brackets around sentences that describe ways in which people harm the environment. Underline sentences that describe ways people help the environment.

Human activities can harm an ecosystem. For example, people mine coal to produce energy for homes and businesses. Open-pit mining, as shown here, kills all the plants living in the area where the mine is dug. Animals that depend on the plants for food must move.

Highways can also disrupt ecosystems. Land must be cleared of plants and animals before a highway can be built. Often hills get leveled and valleys get filled in, blocking streams. Communities of plants and animals that lived in the ecosystem can no longer survive.

Humans produce a large amount of waste that is disposed of as trash. Most trash ends up in landfills. If landfills are not built properly, wastes can pollute soil and water. *Pollution* is the contamination of air, water, or soil by substances harmful to organisms.



Not all changes caused by humans are harmful. People work to protect their environment and to protect organisms from harm as a result of ecosystem change. Protecting ecosystems and the organisms living in them is called *conservation*.

People try to restore habitats and repair damaged ecosystems by replanting trees and cleaning up pollution. People also remove invasive plants and animals so native organisms can survive.

In addition, people try to help organisms affected by natural disasters. People care for animals injured or orphaned by these disasters.

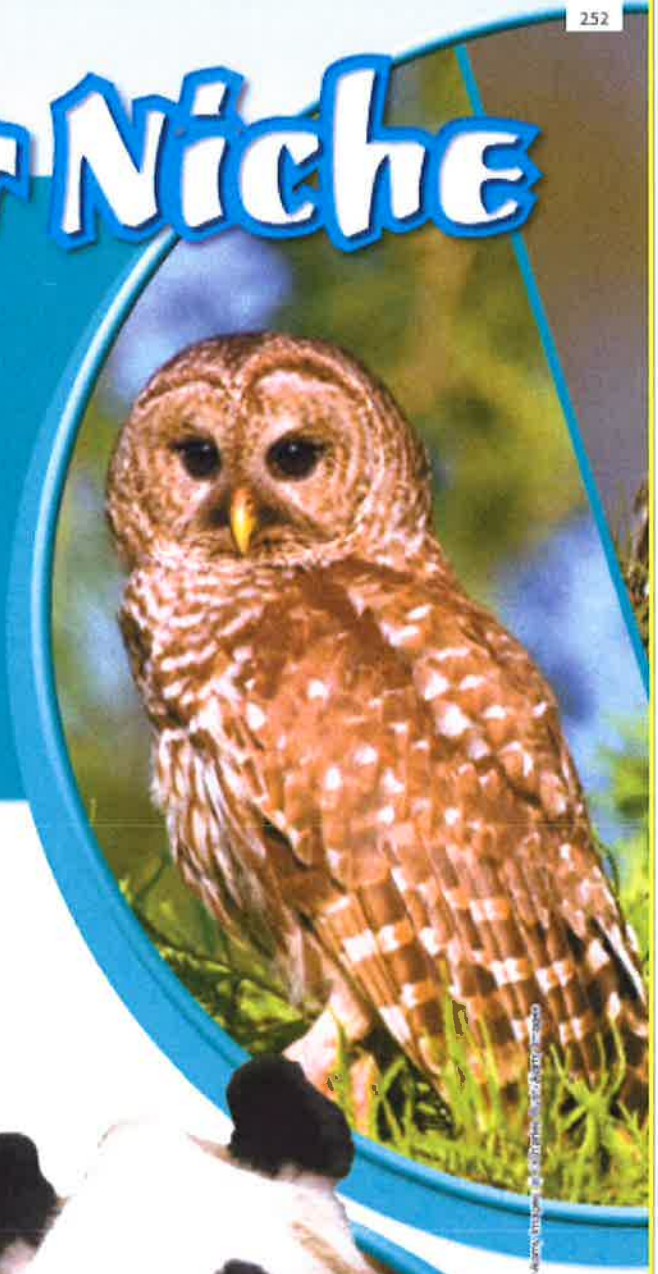
What Can You Do to Help?

In the space below, list things that you can do to help the environment. Include things you already do and what you would like to do in the future.

Find Your Niche

Maybe you have to share your room, your clothes, or snacks with your family members. Organisms that live in the same ecosystem often compete for available resources.

Active Reading As you read these two pages, draw boxes around the clue words that compare and contrast habitat and niche.



An organism's **habitat** is the place where it lives within an ecosystem. Several populations often live in a single habitat. For example, barred owls and red-shouldered hawks live in habitats with woods, nearby open country, and bodies of water.

An organism's **niche** [NICH] is its complete role, or function, in its ecosystem. A niche is different from a habitat because it includes all the ways the organism survives. An organism's niche includes how it finds food as well as the climate it thrives in.

The panda has a narrow niche in terms of food. Its diet consists mainly of bamboo, so pandas cannot survive in habitats where bamboo does not grow.

Red-shouldered hawks and barred owls share a habitat but have different niches. How is this so?

Every organism has a niche. Having different niches allows organisms to survive in the same habitat. When an organism has a very specific way of living, it has a narrow niche. For example, a bird that eats just one type of insect or lives only in one kind of tree has a narrow niche, while an animal that can eat many kinds of food has a broad niche. Organisms with a narrow niche tend to live in specific places, while those with a broad niche often move around large areas.

Populations can share a habitat but not the same niche. Red-shouldered hawks and barred owls, for example, share a habitat, but they have different niches. Hawks hunt by day and owls hunt at night, hunting different prey. If two populations of organisms share a niche, they must compete for resources.

Nice Niche

Suppose a bird is the only animal in a habitat that eats a certain type of berry. The berries are the bird's only food. Describe how this narrow niche could be both good and bad for the bird.

Sharks have a broad niche in terms of food. They are able to eat many different foods.

The Circle of Life

All living things grow and develop. The way that living things develop can be an adaptation.

Active Reading Circle two different examples of organisms whose life cycles keep adults and young from competing for food.

adult luna moth

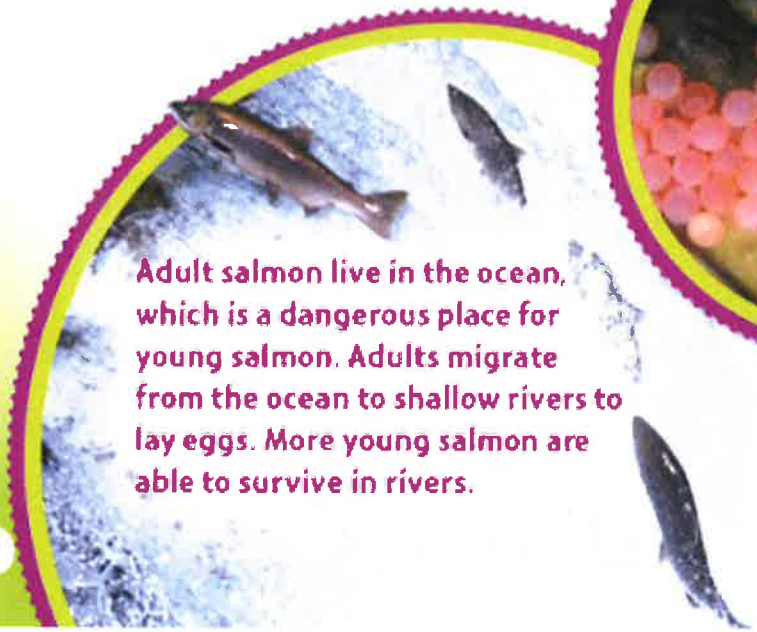
Living things go through stages of growth and development called a *life cycle*. A living thing's life cycle is related to its habitat. Because of this, differences in life cycles are a type of adaptation.

Most frogs are adapted to live near water. A frog's life cycle starts when its eggs are laid in water. When the eggs hatch, tadpoles emerge. Tadpoles live in water until they grow legs and lungs. At this point, they are frogs and ready to live on land. In places where water dries quickly, tadpoles develop more quickly. This variation in frog life cycles helps tadpoles survive.

luna moth caterpillar

Tadpoles and frogs live in different places, and eat different foods. This is another kind of adaptation. Frogs and tadpoles don't compete with each other for food, allowing for more frogs to survive. Many other organisms have similar adaptations. For example, caterpillars eat plant leaves and most butterflies sip nectar from flowers.

salmon eggs



Adult salmon live in the ocean, which is a dangerous place for young salmon. Adults migrate from the ocean to shallow rivers to lay eggs. More young salmon are able to survive in rivers.

#NPS LITERACY
STRATEGIC.
AUTHENTIC.
ENGAGED.

NPS Learning in Place English
Grade: Fifth Grade

READ 14.2D

	Monday	Tuesday	Wednesday	Thursday	Friday
Week 1	Read ***Tucket's Travels*** ***Vocabulary In Context*** pp. 530 - 532 *Imagine you are traveling through the Wild West. Describe your adventure using 5 – 10 of the vocabulary words.*	Read ***Tucket's Travels*** pp. 533 - 548 Complete practice book pp. 241 *Which event from the flow chart on practice page 241 was most important in resolving the main conflict? Describe the event and explain why it was most important.*	Reread ***Tucket's Travels*** pp. 533 - 548 Complete practice book pp. 242 *Create a Flow Chart to show the sequence of events in* ***Tucket's Travels.***	Read ***Desert Survival*** pp. 550 - 552 *Choose one of the animals in the text to write a* poem about. *Use the details from the text and two vocabulary words from Monday in your poem.*	Reread ***Desert Survival*** pp. 550 - 552 *Write a paragraph describing why it would be hard to survive in the desert. Use examples and evidence from* ***Tucket's Travels*** *and* ***Desert Survival.***
Week 2	Read ***The Birchbark House*** **Vocabulary in Context** pp. 558-560 *The Ojibwe made their houses and canoes out of birchbark. Write a paragraph describing the material you would use to build a house and tell why you would use those materials. Give at least 3 supporting details.*	Read ***The Birchbark House*** pp. 561-572 Complete practice book pp. 253 *Create an Inference Map (see example on p. 561) to determine the theme of the story. Write a paragraph using the information from your map to describe the theme of the story.*	Reread ***The Birchbark House*** pp. 561 - 572 Complete practice book pp. 254 *How did the humans act when they encountered bears?* *-Create a Venn Diagram to compare and contrast how YOU behave around wild animals compared with how Omakaya behaved.* *-Write a paragraph explaining whether or not you would have handled the situation with the bear in the same way, or differently. Tell why or why not.*	Read ***Four Seasons of Food*** pp. 574 -576 *Look at the recipe on p. 576 for breakfast rice. Think of a food that your family traditionally eats and create a recipe using the same text features that the author did. Be sure to include an introductory paragraph like the author did.*	Reread ***Four Seasons of Food*** pp. 574 -576 *Write about how the Ojibwe make the most of their environment. Give at least 3 examples from the texts with supporting details.*
Week 3	Read ***Vaqueros: America's First Cowboys*** **Vocabulary in Context** pp. 582-584	Read ***Vaqueros: America's First Cowboys*** pp. 585-596	Reread **Vaqueros: America's First Cowboys** pp. 585-596	Read ***Rhyme on the Range*** pp. 598 - 600 *Write a cowboy poem using at least 2 types of*	Reread ***Rhyme on the Range*** pp. 598 - 600 *Write a paper telling why or why not you would like*

	Using your background knowledge, write to explain what a cowboy does. Create a graphic organizer like the one on page 585 to use for planning. Use at least 2 target vocabulary words.	Complete practice book pp. 265 *What new information did you learn about cowboys? Complete the* ***Cowboy Culture*** *activity on p. 597.*	Complete practice book pp. 266 *Reread pp. 594-595 to find out why Vaqueros' culture changed in America. Write to describe these reasons for the change.*	*imagery (figurative language). Choose from (personification, onomatopoeia, alliteration, similes or metaphors.) Your poem can be rhyming or free verse.*	*to be a cowboy. Give at least 3 main ideas with supporting details. Be sure to include an introductory paragraph and a closing that state your position.*
Read 14.2	*Read a book of choice and record it on the reading log each day.*				
Materials	Access to the books is in the NPS link. If you have your book at home: Journeys Textbook and Journeys Practice Book Reading Log Book of choice to read each day Paper/pencils				

READ 14.2 READING LOG			
Date	**Number of Pages Read**	**Title**	**#summary**
3-12-20	10	*Cinderella*	#mistreatedgirlmeetsprincelosesshoeandliveshappilyeverafter

Name _____ Date _____

Sequence of Events

Read the selection below.

Fire at Berry Creek

A pounding like thunder jolted Carter awake, and he heard his neighbor, Mary, yelling on the other side of the door.

"Carter, Carter, come quick," she shouted. "We need you at Berry Creek. The cabin caught fire!"

Carter grabbed a few buckets sitting on the front porch. By then all the children were awake, and Carter loaded the oldest ones into the wagon to help.

On the way, Mary explained what had happened. She and Eliza were staying in the house alone while their parents traveled. Mary woke up when she smelled smoke. Lightning had split one of the big Douglas firs when a thunderstorm swept across the valley, and the stand of trees had erupted into flames. Hot embers swirled through the air and must have ignited the roof. Mary realized the cabin was burning and alerted Eliza. Eliza stayed to get the horses out of the barn and into the pasture just in case the fire spread. Mary ran for help.

At Berry Creek, the rain had put most of the fire out. Carter and the children set up a bucket brigade to cool the hot spots. Then Eliza burst through the door.

"The horses are safe," she said, giving Mary a hug, "and thanks to your amazing nose, so are we."

Complete the Flow Chart below to explain the sequence of events that started the fire at Berry Creek. Then answer the question below.

Event:

↓

Event:

↓

Event:

↓

Event:

What did Eliza do while Mary went to get help?

_____

Name _____ Date _____

Sequence of Events

Read the selection below.

Crawford's Barn

The Crawfords arrived in the valley late in the summer and quickly set about clearing land to build a cabin. They were in by winter and stayed hunkered down like a family of rabbits until spring. In the spring, the Crawfords came out to meet their neighbors and plan their future.

Ben Crawford staked out a spot for the barn and began digging out the cellar. Next, it was time to build the barn floor.

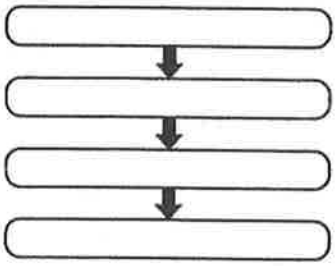
"When we get this floor set down, we'll build the bent frames to support the roof," said Ben.

Word went out around the valley that the Crawfords' barn raising would take place the first week of July. Hattie Crawford couldn't believe her eyes as the wagons rattled down their little road in a billowing cloud of dust. The women set up under the trees and began preparing the food. Meanwhile, the men raised the bent frames and pounded them into place. By midday, the barn was beginning to take shape.

When they broke for the midday meal, Ben Crawford thanked his neighbors for their help.

"Hattie and I are grateful for your help as we get established here in the valley," said Ben. "Next summer, we plan to bring the first of our harvest to the next neighbor just getting started. And we know we'll see your faces around that table when we do."

Fill in a Flow Chart like the one shown here to show the sequence of events in the story. Then answer the questions below.



1. What did the Crawfords do when they first came to the valley?

_____

2. Why did the author organize the story in chronological order?

_____

_____

3. What do you predict will happen next summer?

_____

_____

_____

Name _____ Date _____

Theme

Read the selection below.

Homecoming

Elizabeth woke up and felt a tingle of excitement right down to her toes. Today might be the day! She hopped out of bed and splashed some cold water on her face.

Elizabeth brushed her hair, braided it tight, and then put on her favorite dress. By the time her mother finished making the oatmeal, Elizabeth was ready to go.

"Slow down," laughed Mother, handing Elizabeth her spoon. "You can't get anywhere on an empty stomach."

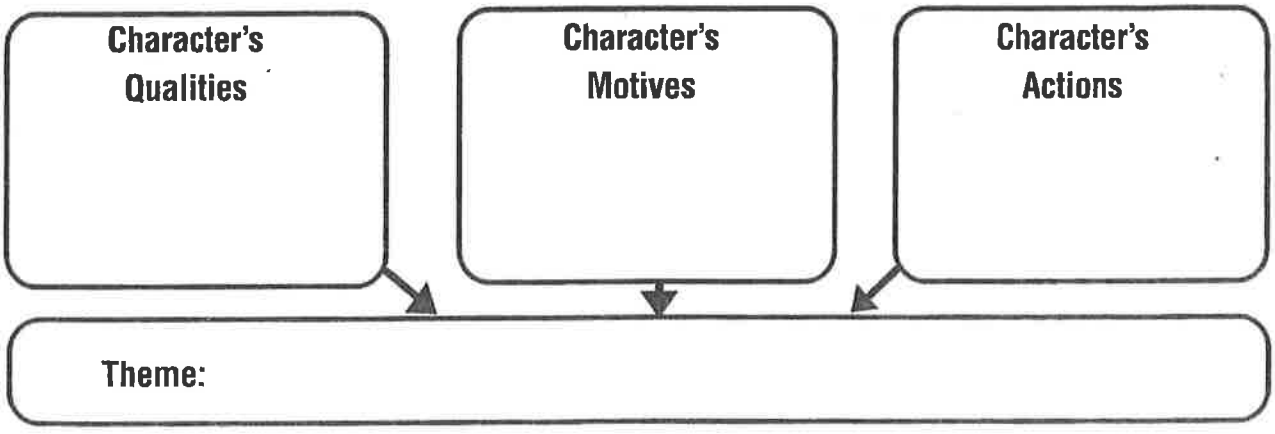
As soon as Elizabeth finished breakfast, she was on her way. She had three miles to walk, and she started out at a brisk pace, feeling lighthearted. At mid-morning, Danny Trent came up with a cart full of onions heading for market.

"Hey, Elizabeth," said Danny, slowing his horse down to walk along beside her. "Can I give you a lift?"

Elizabeth smiled gratefully and clambered up onto the rough seat. "I'm meeting the afternoon train. My father has been gone for five months, but he is supposed to be arriving any day. I've met the train every day this week, but I have a really good feeling about today."

When Danny dropped Elizabeth at the depot, he wished her luck.

Use the Inference Map below to explain the theme of the selection. List Elizabeth's qualities, motives, and actions in the three top boxes. Write a sentence that states the theme in the bottom box.



Name _____ Date _____

Theme

The Birchbark House
Comprehension: Theme

Read the selection below.

Part-Time Student

Jeremy tried to slip unnoticed into the back of the classroom. The teacher, Miss Reston, was reading in a corner to a small group of girls.

"Hello, Art," whispered Jeremy, sliding into his old desk.

"Hello, Jeremy," said Art. "Where have you been these last few weeks?"

"We had a bumper crop," said Jeremy, "and it extended the harvest. We just got the last of the berries in this morning."

"No wonder you look so tired," said Miss Reston, handing Jeremy a chapbook and a slate. "Are you ready to dive back into your studies?"

"Yes, ma'am," said Jeremy.

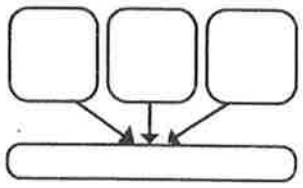
"That's excellent news," said Miss Reston. "Let's figure out where you were when you had to leave school last spring, and get you caught up. I believe you were working on world geography, mathematics, and literature."

"I've been doing some reading most nights," said Jeremy. "Mr. Northcutt lets me borrow books from his lending library, and he's kept me pretty well stocked."

"I'm delighted to hear it," said Miss Reston. "Working your way through his library will be education enough if you can't get any more schooling than that."

"Oh, but I want to go to school, Miss Reston," said Jeremy. "I plan to go to college someday, and it might take me a while, but I'm going to get there."

Complete an Inference Map like the one shown here to help identify the theme of the story. Then answer the questions below.



1. How do Jeremy's actions relate to his motives?

_____

_____

_____

2. What do you think is the theme of this story?

_____

_____

Name _____ Date _____

Main Ideas and Details

Read the selection below.

The Pony Express

Although the Pony Express ran for only eighteen months, it became a lasting symbol of the Old West.

The Problem

The Pony Express has come to symbolize the can-do attitude of American citizens. The west opened up in the 1840s. Settlers began to arrive in wagon trains on the Oregon Trail. People were on the move, but news was not moving quickly enough to meet demand. There had to be a way for information to cross the Rocky Mountains.

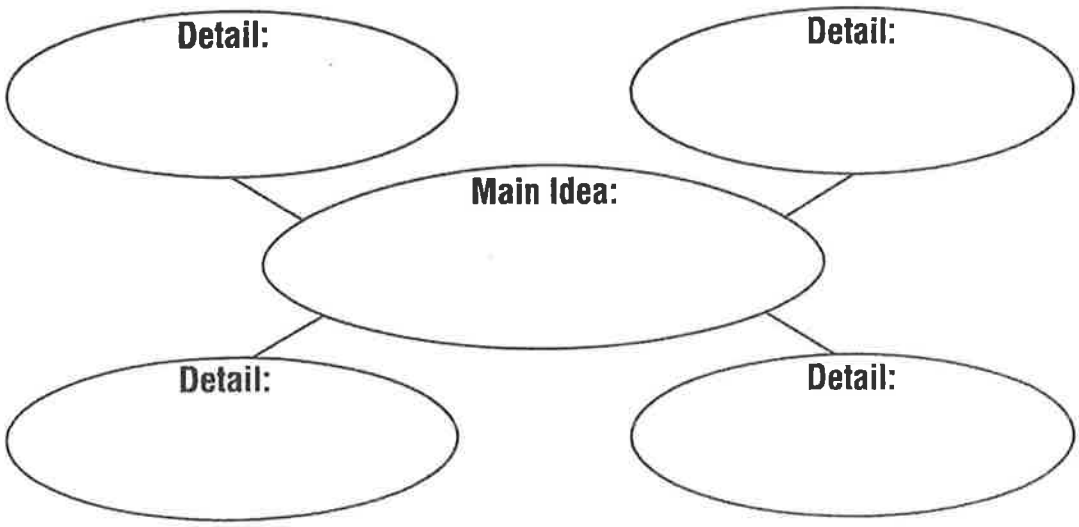
The Solution

On April 3, 1860, the first team of Pony Express riders set out on horseback from Pikes Peak Station in St. Joseph, Missouri. This first ride west took just under 10 days. Soon, there would be over 100 stations along the challenging route west, which crossed prairies, mountains, and deserts.

The Decline

The Pony Express became a reliable and efficient way to send mail west. However, the riders could not keep up with advances in technology. A growing cross-country telegraph network meant that news could travel thousands of miles in an instant. Soon after this network was completed in October 1861, the Pony Express made its final deliveries.

Complete the Web to identify the main idea and supporting details of this selection. Write the main idea in the center and the supporting details around it.



Name _____ Date _____

Main Ideas and Details

Read the passage below.

Levi Strauss

In 1849, California was the place to be if you wanted to strike it rich. Thousands of people went west to seek their fortunes during the Gold Rush. However, many of those who became wealthy didn't spend one day panning for gold. Levi Strauss was one of them.

Getting Established

Levi Strauss was born in Germany in 1829. He moved to New York in 1845 and joined his brothers' dry goods business. News of the Gold Rush lured Levi west. He got to San Francisco in 1853. He opened up his own business, importing clothing, fabric, and other goods. As the population grew, merchants needed items for their stores. Levi became a busy supplier to customers all over the West.

A Riveting Idea

In 1873, Levi received a letter from Jacob Davis, a tailor in Reno, Nevada. Davis made work clothes for a steady stream of gold miners. Davis described how he reinforced the clothes using rivets.

Partnership

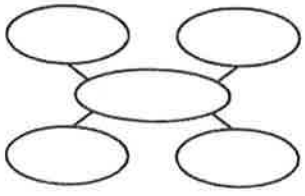
Rivets were a clever solution to a big problem. Mining was tough on clothing. The combination of using rugged material like denim and placing rivets at stress points prevented tearing.

Davis couldn't afford to patent his design so he partnered with Levi Strauss, who took out a patent in both their names. Davis soon moved to San Francisco to oversee the factory. Levi's blue jeans were an instant hit with miners.

Levi's Legacy

Today, the company that Levi started is a worldwide success.

Use a Web like the one shown here to write the main idea and supporting details of this passage. Use your Web to summarize the passage.



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