



Outdoor Education Days Student Workbook

Name:

School:

Class:

Teacher:

Date:

Wild Waves Theme & Water Park Word Search

R E V I R Y Z A L F D M C O A W L T Z U
I T A O B S Z K N R U M L C I E S H I P
S E D I L S I A E D R N T L E U A R P S
I C E E G D P T X I K S D H M X F I L G
C E L E B R A T I O N W W M W U U L I S
A N K P S W E M Q G A S E Q X B A L N R
S U N S H I N E J V I R P H P H H I E A
I S P N I R C I E R M C S N P C W N L E
D V W A I Q G S R Q L B E O N A J G S T
I G C W A T Y E G I O A O C O O A X E N
L M V G T M F N K H O L Z O R S E S D A
C D X J R I I B L H P Y S Z P E B X I H
S J W Q K M M C F X E R B R I L A J R P
G Z Y I M D Y B J L V A B E E P U M U E
O M U I O E W A E U A S V Q Q T T I M L
N Z W H D F F X Q R W V E T V F S J J E
S S R Y Y E U F L Z H Q D U Z A F A I M
H K V Z E S E G W P W A H M U M A Q O L
L W K K X S L W F D I B W I V G N P J C
W G U A N J G F O Z P Q X K F K G E K E

Celebration
Coasters
Elephant Ears
Ferris Wheel
Fun
Ice Cream
Icee
Lazy River
Pizza
Rides

Slides
Summer
Sunshine
Swimming
Thrilling
Timberhawk
Water
Wave Pool
Wild Waves
Zip Line

Words in the Park

Use a dictionary to define the following words.

1. Summit:

2. Incremental:

3. Velocity:

4. Gravity:

5. Specification:

6. Frequency:

7. Meander:

8. Wavelength:

9. Mass:

The ABC's of Wild Waves Theme Park

A is for _____

B is for _____

C is for _____

D is for _____

E is for _____

F is for _____

G is for _____

H is for _____

I is for _____

J is for _____

K is for _____

L is for _____

M is for _____

N is for _____

O is for _____

P is for _____

Q is for _____

R is for _____

S is for _____

T is for _____

U is for _____

V is for _____

W is for _____

X is for _____

Y is for _____

Z is for _____

My Day at the Park Mad-Lib

Fill out the following information with the word of your choice and then insert your answers into the story on the following page. Make sure to share your Mad-libs with your friends and family.

Noun:

Verb that ends in "ing":

Adjective:

Verb:

Adverb:

Number:

Verb:

Adjective:

Plural Noun:

Verb that ends in "ing":

Adjective that ends in "est":

Past tense verb:

Number:

Adverb:

Adjective:

Our class was so excited to go to Wild Waves Theme Park. We met in the school parking lot and boarded a _____ (noun) to travel to the theme park. When we got there, I was so excited I felt like _____ ("ing" verb). My friends and I entered into the park and jumped on the first ride we saw, the _____ (adjective). When I got off the coaster, I felt a little _____ (verb), but I knew it was only temporary. Next, we saw the bumper cars and _____ (adverb) ran to get in line; there were only _____ (number) people in front of us. My friends were already talking about the way they were going to _____ (verb) into each other on the little cars. After the bumpy ride, I decided to get a _____ (adjective) drink and a couple of _____ (plural noun) to eat. We decided it was time to ride the Timberhawk. I was so nervous. We were on the way up the first hill when I heard someone below shout "Good Luck." The last time I rode the Timberhawk I ended up _____ ("ing" verb). After hitting speeds of 75 miles per hour on the first hill, I decided that this was the _____ ("est" adjective) ride I had ever been on! When the ride was over, I _____ (past tense verb) over to a bench and sat down for a few minutes. With the encouragement of my friends, I built up the courage and rode the Timberhawk _____ (number) more times. The rest of the day went _____ (adverb). Wild Waves Theme Park is a _____ (adjective) theme park and I cannot wait to go back again.

Dodge em's Bumper Car Science

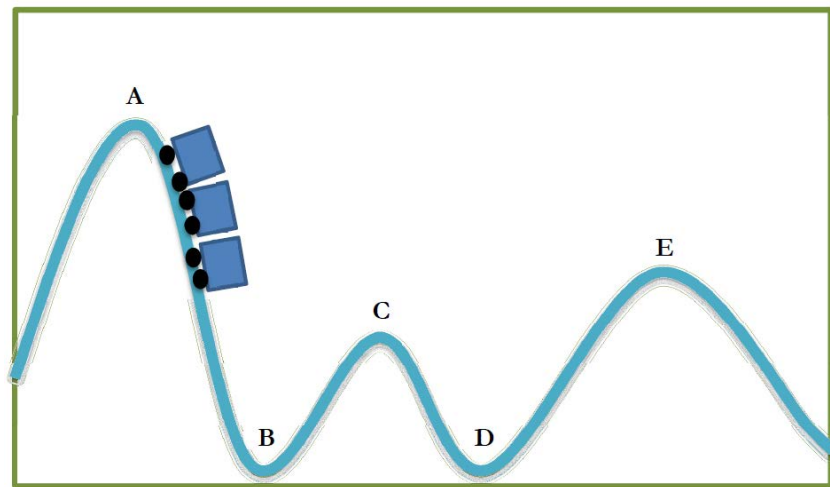
The Dodge'em Bumper Cars can be a crazy ride. Crash into other cars, or steer clear of the danger! Think of Dodge'em Bumper cars at Wild Waves Theme Park when answering the questions below.

1. If you are in a head-on crash on the Dodge'em Bumper Cars you are thrown
 - a. **Forward**
 - b. **Backward**
2. When you are hit from the rear, you are thrown
 - a. **Forward**
 - b. **Backward**
3. You are thrown forward when your car
 - a. **Stops**
 - b. **Starts**
4. You are thrown backward when your car
 - a. **Stops**
 - b. **Starts**
5. You feel the biggest jolt when you hit another car
 - a. **Straight on**
 - b. **In the back**
 - c. **On the side**
6. Bumpers make the crashing cars
 - a. **Stick together**
 - b. **Bounce away from each other**

Describe how the mass of a rider would affect a head-on crash.

Describe how the velocity of the bumper car would affect a head on-crash.

Energy in Motion



Use the above diagram to answer the following questions:

1. Which letter shows the roller coaster's greatest potential energy?
2. Which letter shows the roller coaster's greatest kinetic energy?
3. Which letter demonstrates the roller coaster having the least potential energy?
4. Which letter, C or E, would demonstrate the roller coaster having more potential energy?
5. How would you demonstrate the kinetic-potential energy conversions that happen on the Timberhawk?

The Pirate Ship

Use the following data to determine the speed of The Pirate Ship.

Materials: Stop watch, calculator

Procedure:

1. While standing on the ground, use the stopwatch to measure the amount of time it takes The Pirate Ship to make one complete swing. Record your data and repeat for two additional swings. Then, calculate the average time.

Observations	Times
Swing 1	_____
Swing 2	_____
Swing 3	_____
Total	_____
Average Time =	_____ (Total divided by 3)

2. The arc of The Pirate Ship's swing is 150 degrees and the radius of the arc is 45 feet. Use the radius to calculate the complete circle (circumference) of The Pirate Ship's trip, if the ship went completely around in a circle.

$$C = 2 \pi R$$

Then calculate the actual distance The Pirate Ship travels by this calculation:

$$150/360 \cdot 42$$

$$C \times .42 = \text{_____ actual distance.}$$

3. Calculate The Pirate Ships speed.

$$\text{Speed} = \text{Distance/Time}$$

$$\text{Speed} = \text{_____}$$

The Timber Axe

The unsuspecting passenger who boards the Timber Axe will get more than just a whirl in the park. This ride takes the passenger and flings them upside down as it moves in a circular motion. In this activity you will find out what a rider's speed is in one revolution.

Problem:

What is the speed of a ride when the Timber Axe is spinning vertically at top speed?

Materials: stopwatch, calculator, data sheet

Procedure:

1. Find the circumference of the Timber Axe. Record data. ($C=2 \times \pi \times R$)
2. Pick a rider. Determine the time it takes that person to make one revolution in a vertical position. Use a stopwatch and record your data. Try multiple times, this will take practice.
3. Using the formula ($S=D/T$) calculate the speed of the passenger. Your answer will be in feet per second.
4. Calculate your answer in m.p.h. Use the following calculation to figure the Timber Axe's speed of _____ MPH:
$$\frac{\text{Circumference in feet} \times 1 \text{ mile} \times 3600 \text{ seconds}}{\text{Time of one revolution} \times 5280 \text{ feet} \times 1 \text{ hour}}$$
5. Knowing the time of one revolution, estimate the number of revolutions in the vertical position that the passenger would make in one minute.
6. What would your answer be in meters per second? To convert feet to meters, multiply .3048
7. Why do you feel pushed against your seat as the ride spins you around?

Traveling the World

Directions: Use a park map to navigate your day at Wild Waves Theme Park.

As I enter the park through the main entrance, I would be on the _____ side of the park.

I wanted to start my day off playing some arcade games, so I headed directly _____.

I wanted to go ride the only wooden roller coaster in the Northwest, _____, which is located on the eastern side of the park.

I skipped a few rides since I was still a little dizzy and continued on to _____, the northernmost attraction in the park. I hope I don't get too wet.

I wanted to scope out the entire park from a view from the top. I headed southwest landing at the _____.

Time to take a break. I grabbed a seat in the _____ in _____, in the southeastern part of the park to watch the show.

After my break, I was ready to have some fun in the water. I headed southwest and decided to do some cannon balls in the _____.

Afterward, I headed south to catch some waves at the _____.

I wanted to go on some tube rides, so I grabbed a tube and headed west where I had to climb up some stairs and decide between the _____, _____, _____, or _____, slide.

I worked up quite the appetite and wanted some nachos, so I headed _____ and got some at goWILD snacks where the cheese was piled high.

With the sun setting I knew I had one more roller coaster to get on, the Wild Thing, so I headed _____.

When it was time to go home, I headed this direction to get to the main entrance _____.

Money Mania

The following people are having trouble figuring out their budget. Help them find out how much money they will need.

Andy wants to purchase Photo Memories for himself and his group of three friends. Two of his three friends want a 4x5 photo and two of them want a 5x7. Andy also wants to buy each of them a key chain.

Figure out his total cost for the photo memories.

4x5 - \$10

5x7 - \$12

Keychain - \$9

Maggie wants to treat herself to a lunch after she rides the Timberhawk for the first time. She decides on Carousel Café and has \$15 to spend. List three possibilities for meals using the choices below.

Hamburger -
Cheeseburger –
Small Fry –
Large Fry -
Elephant Ear –

Small Soda –
Large Soda –
Candy Bar –
Icee –
Cotton Candy -

Option 1

Total:

Option 2

Total:

Option 3

Total:

Phil bet his friend Eric that he could not eat 3 elephant ears, 2 cheeseburgers, 1 small fry and a large drink from Carousel Café before he rides The Wild Thing. Find out how much Phil will spend if he pays for $\frac{2}{3}$ of the meal.

If Eric completes the task, he will pay for a $\frac{1}{4}$ of the meal, how much will he pay?

Mike and Kenny want to ride the Skycoaster. If they ride separately, the cost is \$30 each. If they want to ride together the cost is \$25 each. What percentage of money will they save if they ride together? What if they add their third friend, Nick, and the cost decreases \$20 per person.

Help, I'm Lost!

Shelly just got off the Klondike and cannot find her friends anywhere! An announcement has just come over the loud speakers, "If you or a member of your party have become lost or separated, please meet at Guest Relations towards the Main Entrance of the park." Use a map of Wild Waves Theme Park to write out directions for Shelly to find her way from the Klondike exit to the Main Entrance using the walkways and not walking on the grass. Be sure to note landmarks along the way as Shelly might forget the path.

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.
- 10.

Northwest Territory at the Park

Wild Waves Theme Park has a section in the park named Northwest Territory. Answer the below questions about the Northwest.

1. The _____ Ocean is to the _____ and the _____ Mountains are to the _____.
2. The three largest metropolitan areas include _____, _____, and _____.
3. Name 3 of the 5 Pacific Northwest Mountain Ranges.
 - a. _____
 - b. _____
 - c. _____
4. Located in the Washington Cascades is the _____ peak in the Northwest, which is named _____.
5. The second tallest evergreen conifer on earth grows in the Northwest because of our lush forests. This tree is called _____.
6. The Pacific Northwest experiences a wide variety of climates. An _____ climate occurs in most coastal areas. An _____ climate dominates in the high mountains. Lastly, _____ climates are found east of the higher mountains.

Fan Favorites!

Wild Waves Theme Park covers 70 acres in Federal Way, Washington. Some of Wild Waves Theme Park's most popular rides and attractions include Timberhawk, Wild Thing, Timber Axe, Lumberjack Falls, Wave Pool, Zooma Falls and Skycoaster.

We would like to conduct a survey of our students to decide which is the best ride of the most popular rides at Worlds of Fun. After all the information is collected, students will graph results and make comparisons.

Below are your choices, please circle only one ride in each category.

Roller Coasters

Timberhawk
The Wild Thing

Water Rides

Zooma Falls
Riptide
Raging River Ride

Thrill Rides

Disk'o Flashback
Ring of Fire
Timber Axe

Amusement Park Classics

Antique Carousel
Ferris Wheel
Lumberjack Falls

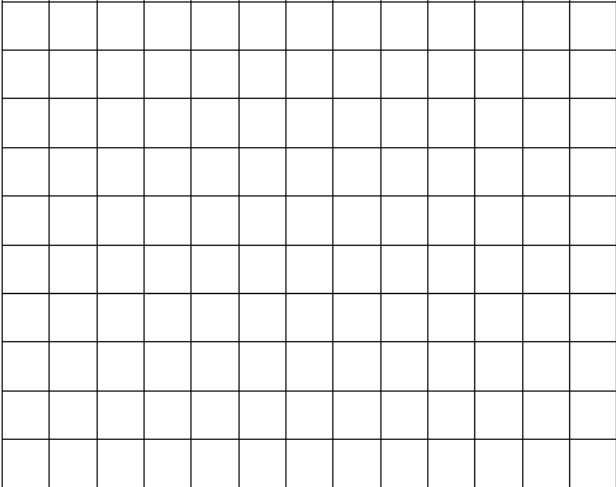
Collect data from as many people as possible. Complete graphs on the following page showing your results. Help us determine which rides are fan favorites!

Was the data similar to what you expected?
Do girls have different preferences than boys?
Which ride was the most popular of the rides?
Think of as many different categories as you can!

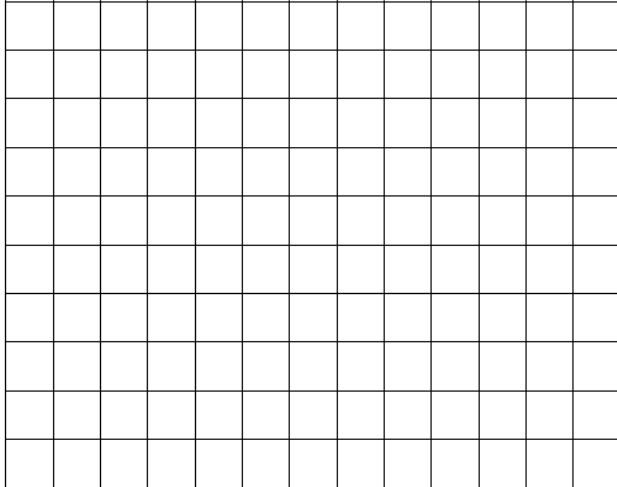
Fan Favorites

Comparison Graphs

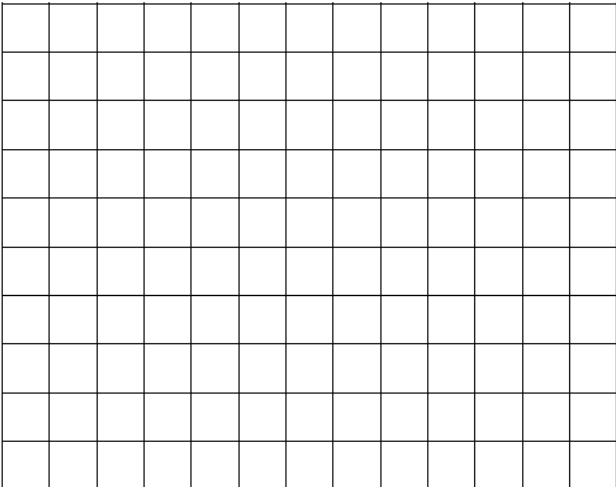
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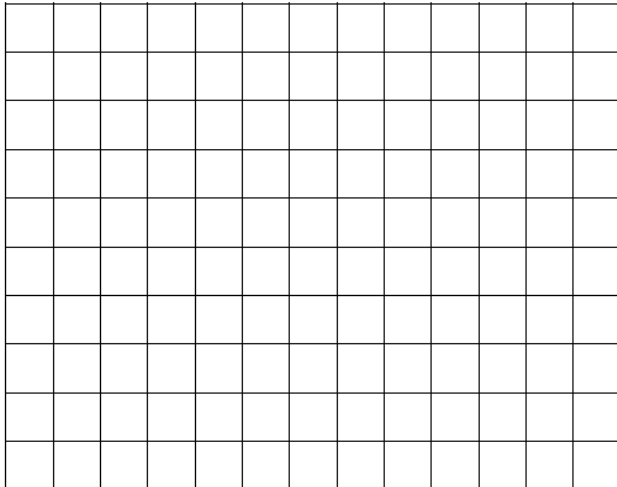
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Where Did Wild Waves Theme Park Get This Ride?

Using the information about the manufacturing of the rides, plot the location of where the ride came from on a map of the USA. Draw a straight line from the point of manufacturing to Wild Waves Theme Park. Use an atlas to help plot the exact locations of the manufacturing cities. Also look up the latitude and longitude of the cities mentioned.

Name of Ride	Location	Latitude	Longitude
Wild Thing	Rocky Point, Rhode Island		
Ring of Fire	Plainview, Texas		
Timberhawk	Logan, Utah		
Lumberjack Falls	Nashville, Tennessee		



Ride Distance Traveled

Using the map of the United States with the plotted cities, measure the distance between a particular city where a ride was manufactured to Wild Waves Theme Park in Washington. Use rulers to measure the distances in inches and then convert them into miles using the given scale.

Round to the nearest $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$, or whole inch

Remember: $\frac{1}{4}$ inch = 75 miles, $\frac{1}{2}$ inch = 150 miles, and $\frac{3}{4}$ inch = 225 miles

Scale 1 inch = 300 miles

	Inches	Miles
Wild Thing		
Ring of Fire		
Timberhawk		
Lumberjack Falls		

Figure It Out

Using the information from the conversion activity sheet, “Where Did Wild Waves Theme Park Get This Ride?” calculate the estimated travel time given an average speed of **60 miles per hour**.

Remember: Time = miles / speed

Calculate the amount of gas used to bring the ride to Worlds of Fun when a truck gets 15 miles per gallon.

Remember: Amount of gas = miles / mpg

	Miles	Time	Gallons of Gas
Wild Thing			
Ring of Fire			
Timberhawk			
Lumberjack Falls			

Timeline of Worlds of Fun

In our study of history, a timeline is a very helpful tool that allows a person to see when events occurred.

Fill in the timeline with the listed Wild Waves Theme Park events and research an important world event in that year to add to your timeline.

2013

Wild Waves Theme Park Events

- 2000 - Became Northwest's Largest Theme Park
- 1977 - Byron Bretts opened Enchanted Village on 12 acres
- 2001 - Enchanted Village celebrates it first Fright Fest
- 1984 - Water Park opened to Public
- 2012 - Wild Waves Theme Park celebrates 35 seasons
- 1997 - 15 acres are added to the park including the first major roller coaster, The Wild Thing
- 2005 - Six Flags adds Zooma Falls
- 1998 - 10 more acres are added to the park and two new rides including I-5 Dive
- 2000 - Wild Waves and Enchanted Village is acquired by Six Flags
- 2003 - Six Flags adds the Timberhawk - Washington State's biggest roller coaster

1977