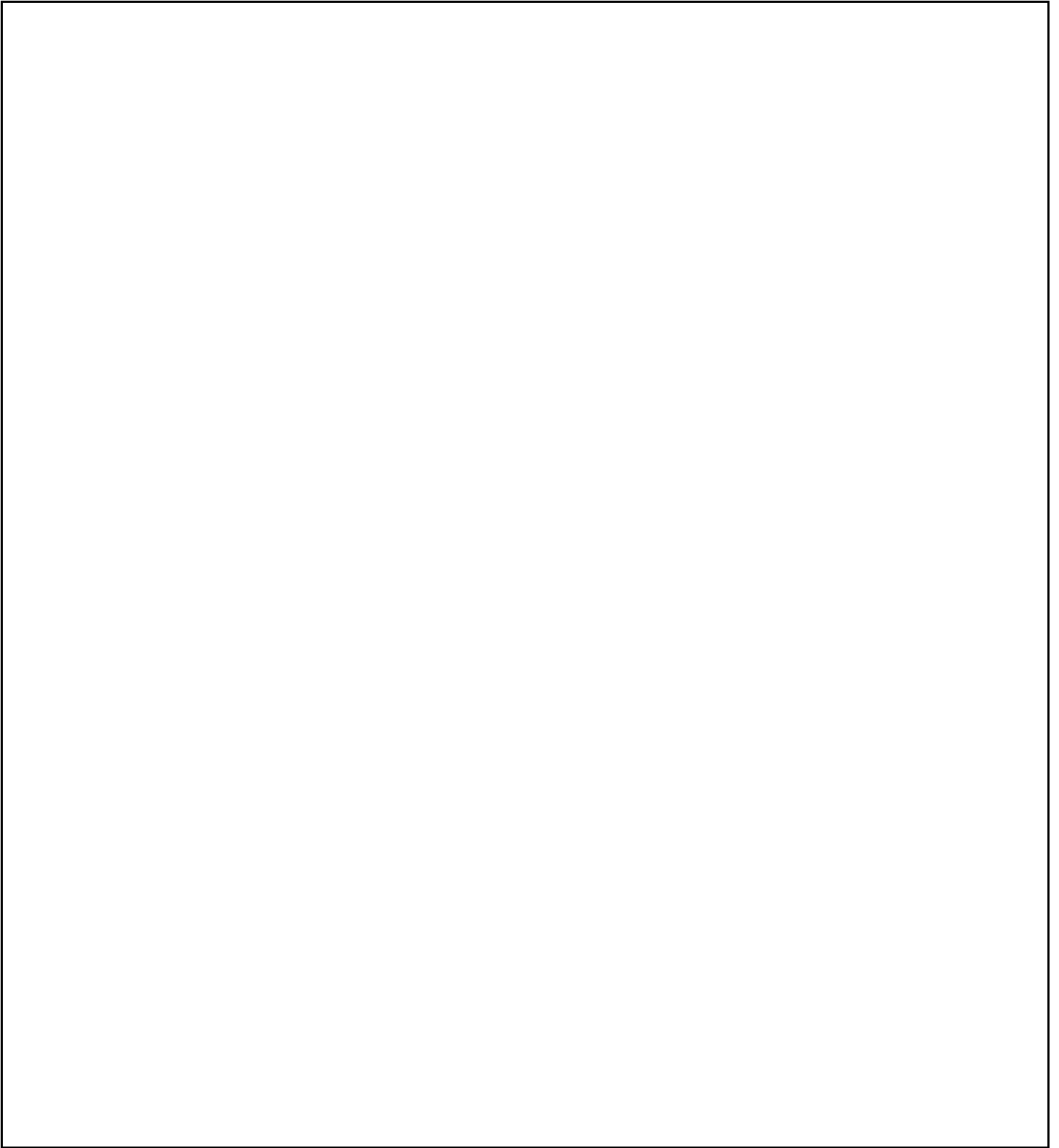


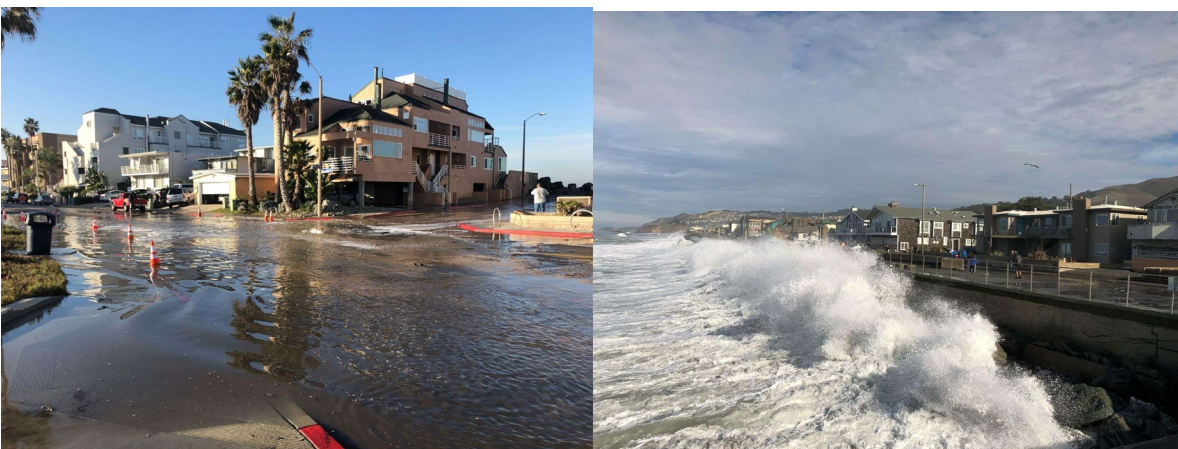
My King Tides Science Journal

A large, empty rectangular box with a black border, intended for students to write their journal entries.

Name: _____

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About King Tides

What are King Tides? The term “King Tides” is used to describe very high tides, which happen when the sun, moon and Earth align, creating a stronger gravitational pull on the ocean.

Why are King Tides important? When King Tides occur during floods or storms, water levels can rise even higher and can cause damage to the coastline and coastal property.

How are King Tides related to sea level rise? King Tides are not caused by sea level rise, but they allow us to experience what higher sea level will be like. King Tides are about two feet higher than average tides, which is what we expect to see during the next few decades with climate change-fueled sea level rise.

What is the King Tides Project? The California King Tides Project is a community science project to visualize future sea level by observing the highest high tides of today.

How can I participate in the King Tides Project? During King Tides, take photos at the coast, bays and estuaries throughout California, and submit them online. These photos are uploaded to a King Tides photo map, which helps create a vision for how climate change and sea level rise will impact California.

Where can I learn more? For more information about King Tides, your local high tide times, and how to participate in the King Tides Project, please visit www.california.kingtides.net.

How to use this journal

- 1.) Review these instructions and the safety guide with an adult.
- 2.) Gather materials: this journal, a clipboard or hard surface, a pencil, and crayons or colored pencils if you want.
- 3.) Decorate the cover of this journal and complete both “Before you go...” activities.
- 4.) During high tide time on a King Tides day, go to a wetland, beach, estuary, or bay that is accessible to you and your family, or view a [California coastal webcam](#). For the 2020-21 season, King Tides arrive on:
 - November 15-16 2020
 - December 13-15 2020
 - North of Point Conception only: January 11-12, 2021
- 5.) Observe King Tides. Use all your senses! What is different? What stayed the same? What is the water doing? What are animals doing? What are people doing? Draw and write what you notice on pages 7-11. You can complete all of your observations on one day, or over multiple days and locations during the King Tides season.
 - If possible, observe the wetland, beach, or estuary before or after the King Tide, and draw and write what you see.
Compare these observations to your King Tide observations from the same spot.
- 6.) Bonus: ask an adult to send pictures of your drawings and notes to kingtides@coastal.ca.gov.

Safety Guide

For observing King Tides outdoors. If you will be watching from a [coastal webcam](#), skip to the next page.

<p><i>Draw a picture for each safety tip.</i></p>	<p>Dress for the weather. Wear layers and sturdy shoes. Bring rain gear and sun protection, as needed.</p>
	<p>Walk, don't run. The ground may be slippery!</p>
	<p>Face the waves if you are at the coast. Don't turn your back on the ocean!</p>
	<p>Watch big waves from far away if you are at the coast.</p>
	<p>Make your own: _____ _____ _____ _____</p>

Before you go...

What do I know about tides or King Tides?

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<hr/> <hr/>	<hr/> <hr/>

Before you go...

What questions do I have about King Tides?

<hr/> <hr/> <p>?</p>	<hr/> <hr/> <p>?</p>
<hr/> <hr/> <p>?</p>	<hr/> <hr/> <p>?</p>

Date: _____

Time: _____

Location: _____

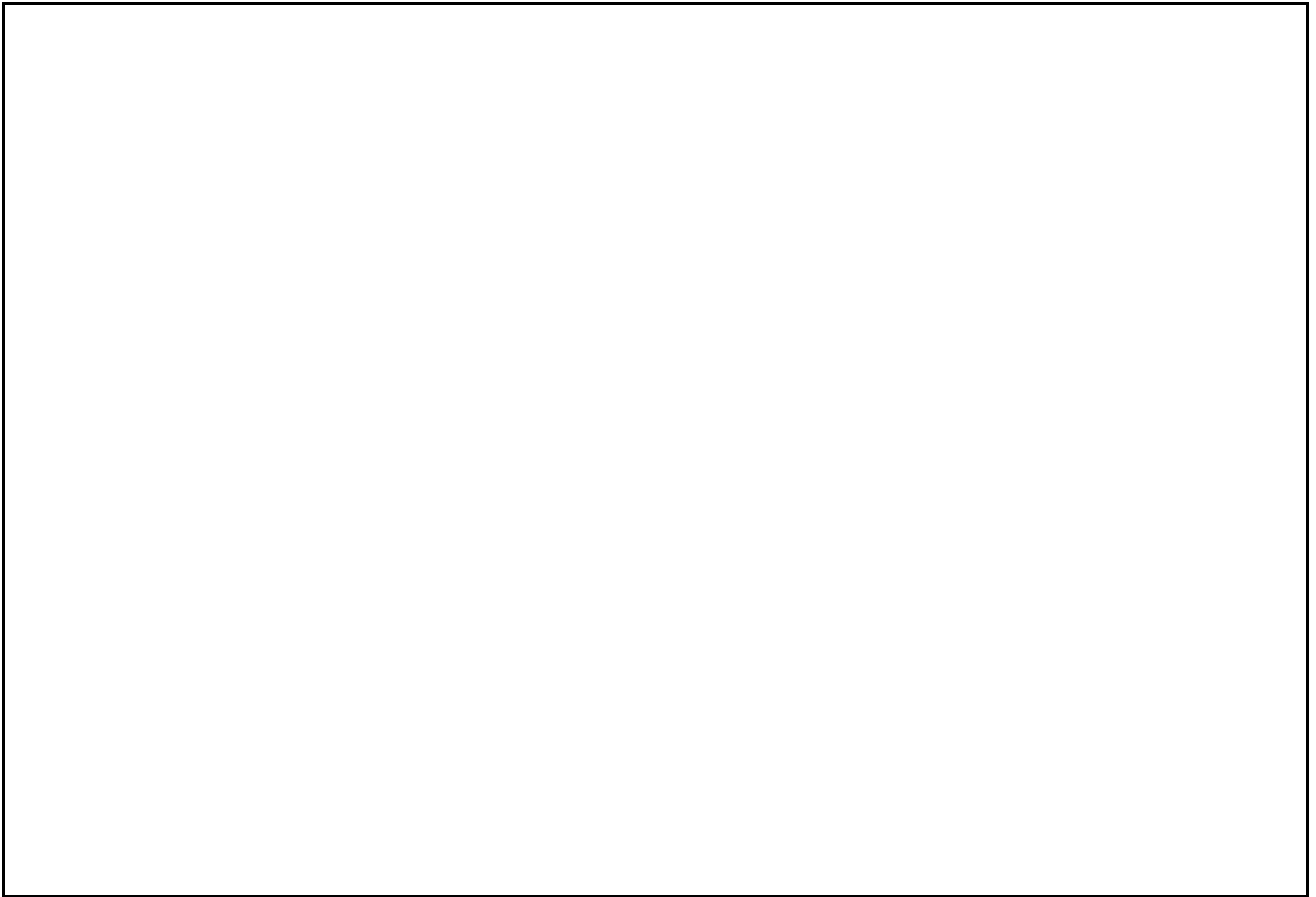
What do you see?

What do you notice or wonder? What is the water doing? What are animals doing? What are people doing? _____

Date: _____

Time: _____

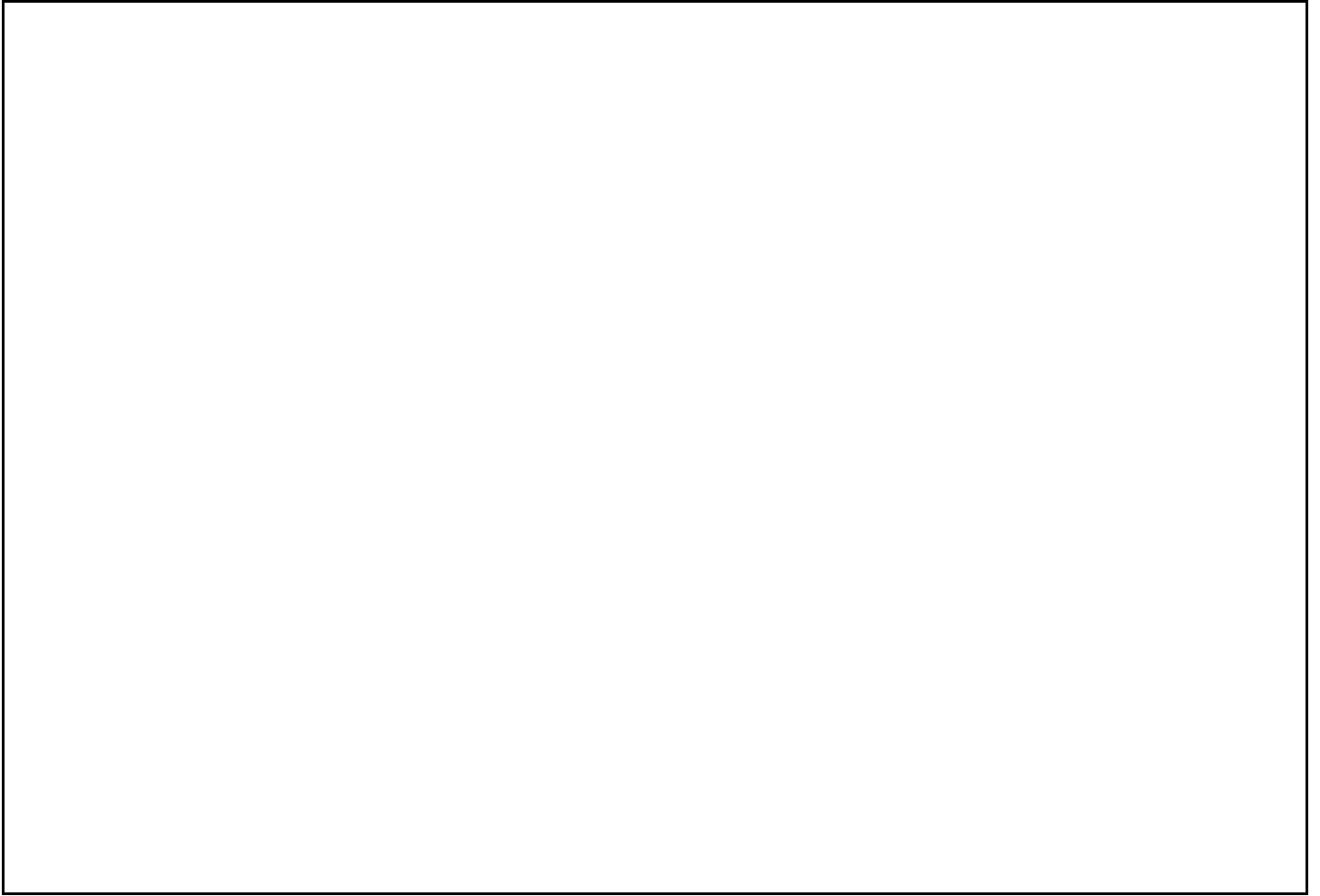
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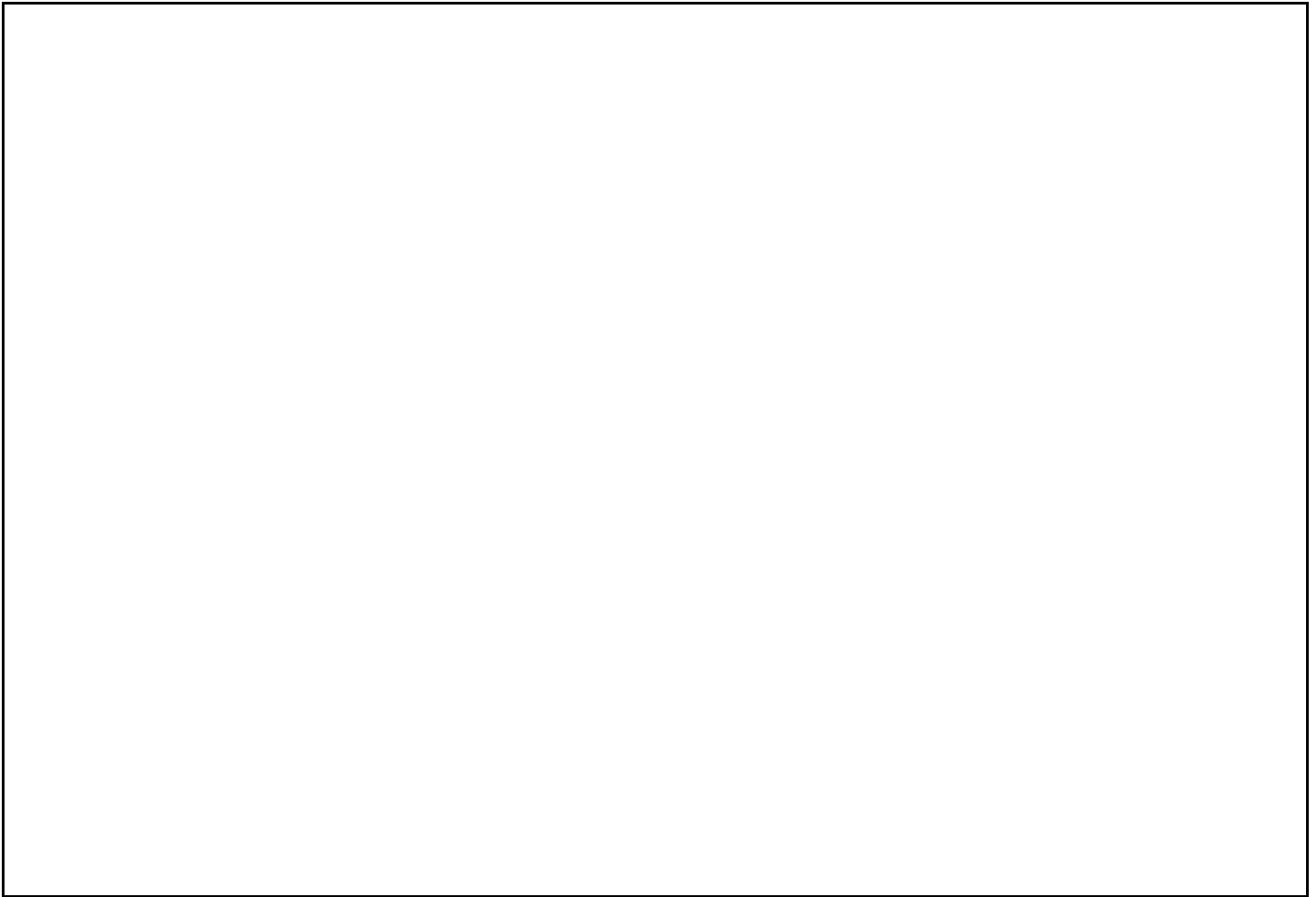
Location: _____



Date: _____

Time: _____

Location: _____



What did I learn about King Tides?

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<hr/> <hr/>	<hr/> <hr/>

King Tides Word Search

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

Word Bank			
Bay	High	Gravity	Sun
Beach	Low	Ocean	Wave
Estuary	King Tides	Photo	Water
Flood	Moon	Storm	Wetland