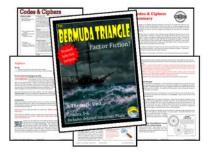


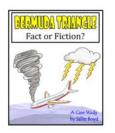
WE BERMUDA TRIANGLE

Overview of Materials

"If you could study anything you wanted to, what topics would you choose?" That's the question I asked my third and fourth graders. After thinking and talking about it for a week, they listed and discussed all the possibilities, and then voted for 10 subjects. The Bermuda Triangle was one of their top choices. If you're looking for something for the first couple of days of school, an exciting subject for use when you need a substitute, or just a fun week to practice useful skills, this may be the unit for you! Here's what you'll find in these materials:



File 1: Teacher's Guide
Overview, Standards, Book List,
Credits, detailed Lesson Plans you
can leave for a substitute, and
Worksheet Answers. This is an
exciting, student-selected topic for
a special time.



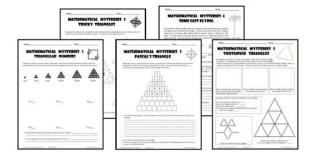
File 2: Case Study Notebook Students make an interactive notebook to record their research during the unit.



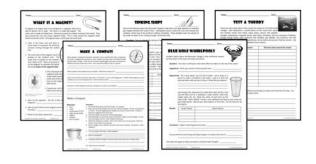
File 3: Fact, Opinion, or Theory? Activity Students sort 32 statement cards into fact, opinion, or theory.



File 4: Reading Files
Students read from a collection of 45
artifacts including Vessel Incident Reports, Aircraft Accident Reports, letters, newspaper articles, and ship's logs as they dig for the truth of the Bermuda Triangle.



File 5: **Math**Students calculate travel speed, and explore several mysterious triangle problems finding patterns and making algorithms to solve them.

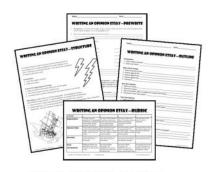


Five science activities allow students to explore and test some of the theories of causality related to the Bermuda Triangle. Common classroom objects are used to test ideas using the scientific process.

File 6: Science Activities



File 7: Art Project
Students will use what they learn about the
Bermuda Triangle to make an abstract drawing
or a collage of images about the subject.

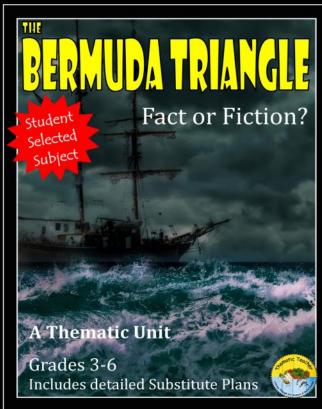


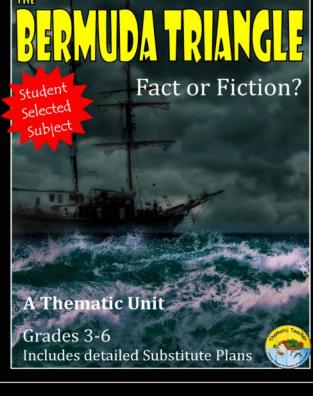
File 8: Writing—Opinion Worksheets walk students through analyzing their research and writing a 3-5 paragraph opinion essay.

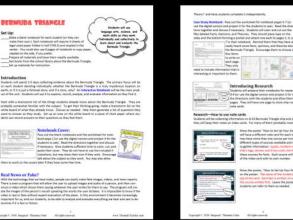


Posters (about 11X17) help students focus on the primary question, and provide instruction on research skills.

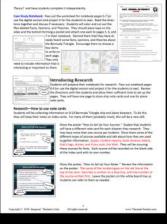
SUBSTITUTE LESSON PLANS

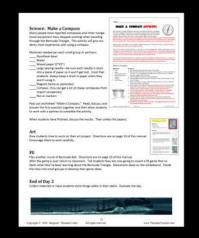












BERMUDA TRIANGLE

Summary

The <u>Bermuda Triangle</u> is an integrated language arts/science/math/art unit focused on the truth or myth of the Ber muda Triangle. Students will investigate, record, analyze, and evaluate information about this notorious section o ocean to determine if it is fact or fiction. They will practice the skill of identifying fact or opinion as they read abou data, encounters, and theories about this region. They will make their own decisions at the conclusion of the unit An interactive notebook will anchor their investigations.

Reading activities center on nonfiction articles, artifacts, learning through reading, and following "how-to" directions. Students will research accounts of "mysterious events" in the Bermuda Triangle using incident reports, investigation notes, and primary source material such as ship's logs, letters, and other documents. The Vessel Incident Reports and "NTSB" investigations are presented in a format similar to those of real life, but I have created these formats for this purpose. They are not the actual reports, but contain as much true information as possible. There are 48 different items for students to use. They come in two versions—one that can be printed out for students to handle, and a PDF version that can be read online. Choose the format best suited to your needs.

The writing component focuses on writing an opinion essay of 3-5 paragraphs to answer the unit question—is the Bermuda Triangle, in fact, a strange, mysterious place in the ocean where ghost ships sail and people disappear, or is it just a fictional story? After completing their research, students will write an essay to express their opinion, try-ing to persuade others to agree with them.

Five math worksheets, one per each day, offer students mathematical puzzles related to triangles.

Five science activities, one per day, give students the opportunity to investigate theories about causal events in the Bermuda Triangle.

The art project combines the idea of triangles with things purported to occur in the Bermuda Triangle. It is quite time consuming if done correctly.

re is a lot to do. The unit can take 3-5 days, depending on how much you choose to do. The writing unit requires ays to complete the research and the writing activities.



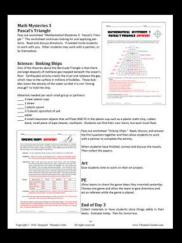
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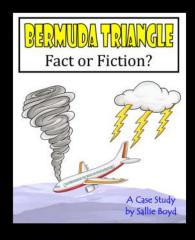
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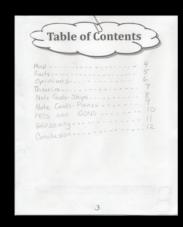




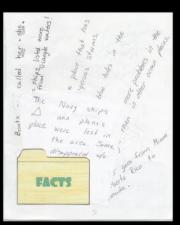






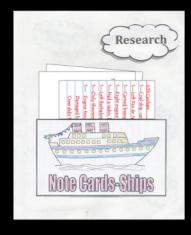


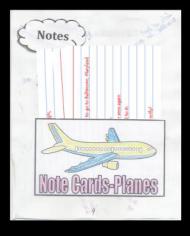




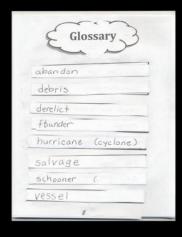


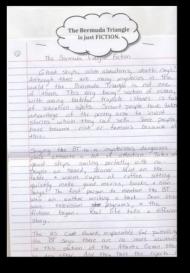












CASE STUDY INTERACTIVE NOTEBOOK

Students collect a variety of information as they research the Bermuda Triangle. They keep their information in an interactive notebook, the final product of the unit.

Atlantis by Edgar Cayce

300 feet lower than they are today. that time there was one large island, a continent perhaps, extending far out into

the North Atlantic Ocean. It was called Atlantis. Andros two of the tallest

mountains in that time. Today of one large island, there are small islands in the area. Th ocean covered this glorious ci tion, stealing its secrets wit water. However, the secrets a

I am a very powerful psychic a of my special abilities I am a talk with the lost people of A From 1924 to today (1944) I ha received many messages from th tell me that the island of Atl arise in 1968 or 1969.

The people of Atlantis were th civilization that was more adv our modern world. They used t of crystals to mine gold, silv copper from the earth. They u waves to heal. They knew more

Ship's Log, Christopher Columbus and fleet-Pinta, Nina, Santa Marie

Sunday, 15 September 1492

"We sailed twenty-seven leagues (93 miles, 150 km) and a few more to the west. Early in the night we saw a marvelous branch of fire fall from the sky into the sea. It was about 4-5 leagues away from us.

149

s cal

st for

Monday, 17 September 1492 "We took a slight turn toward found that the compasses turn full point (turned 11.25 deare pointing toward the North Sti The sailors were fearful and d say why. I was aware of this would mark north again whe

Mysterious Explosion, Another Plane Missing

December 1945-As if five missing torpedo bombers is not bad enough, plane searching for the missing

Wednesday, December 5 five seaplanes were sent to se Flight 19, a group of Navy torpedo bombers sent on a b practice run. The entire group of planes has been since 7:04 PM on Monday. The PBF Mariner, a seap lected for the mission because it can land on the ocea routine radio message a few minutes after take-off never heard from again.

Captain Shonna Stanley, of the SS Gaines Mills, was : for debris and survivors from the supposed downer when he spotted an enormous ball of fire that explo burned for ten minutes out to sea. When the area was investigated the position, finding what he claims were aviation gas and an oil slick. He gave samples of the the Navy for testing. Although they searched the are edly for hours, no other debris, nor any victims or s were found.

One of the search planes reports losing the radar sig another plane at about the same time. The search for t ing planes continues in spite of the weather turning for

flight is now also missing.

Spray was not a safe design make it around the world. One man who saw the boat just before Slocum left on his last trip said that it was dirty, smelly, and needed a lot of Some people report seeing Slocum in different parts of the West was never heard from again. Some say they saw him in many ports in This loss remains a mystery. He a gale destroyed the ship. The boat caught on fire. It was run over by a large ship at night. He blacked out and fell overboard repairs and just couldn't take the trip. unhappy with his wife and faked his own death to plain the disappearance of Joshua Slocum and the

Vessel Incident Report

US Coastal Protection Agency, Page 2

National Travel Safety Bureau

Aircraft Accident/Incident Report

Report No. Grumman Torpedo Bomber TBM Avenger Last known—50 miles east of Daytona Beach, FL over Atlantic 4. Damage ___5_Destroyed ____A Lot ____ Little None Lost Serious ___ Slight Injuries 14 Fatal None Unknown 6 Travel Plan Departed From FL Naval Air Station, 2:10 PM (Lead) Commander Charles Taylor FLNAS 9. Weather At Accident Area: Clear Visibility: 10-12 miles 10. Pilot License Fighter Pilot, combat experienced

Other mission crew: Captain Edward J. Powers, Jr. and 3 pilots were students, but had 400 hours of flying experience each. Capt had 2,509 flight hours, rated an excellent pilot, combat tested.

Mission was to fly east to the Berry Islands, north to Great Sale Cay, then back to Fort Lauderdale Naval Air Station. The flight was to last 2 hours and 15 minutes, and cover 123 miles. The team finished bomborthwest. If they had stayed on this course they would have arrived

At 3:40 PM Taylor reports all compasses are not working. He's over broken land, doesn't know where, maybe the Florida keys?

Vessel Incident Report US Coastal Protection

Date of Report 5-3-1813	Sch	cosel chooner <i>, Patriot</i>		Departure Port Charleston, SC		
Date of Sail 12-30-1812		e Port known		Destination Port Port of New York City, NY		
Persons on Board Mr. Overstocks		Relationship Captain		Contact Information Unknown		
Theodosia Alston		Passenger	C	Columbia, South Carolina		
Timothy Green		Passenger	N	New York City, New York		
Mrs. Alton's Maid		Passenger	Columbia, South Carolina			
Investigation Report				· · · · · · · · · · · · · · · · · · ·		

Theodosia Alston, wife of the governor of South Carolina, John Alston, left Charleston, South Carolina, bound for New York City. She was going to visit her father, Aaron Burr, for the holiday. A family friend and her maid traveled with her. She brought along a painting of herself as a Christmas present to her father.

The United States was at war with Great Britain. The British navy was blockading the coast of South Carolina. Governor Alston asked the enemy for safe passage for his wife's boat. This was granted. The schooner, Patriot, had just returned from a privateering run for the United States government. The guns were stowed below deck and the vacht's ame was painted on the bow so the British could easily see her

On January 2, 1813 the British fleet stopped the schooner off the coast of Cape Hatteras, North Carolina. She was given permission to pass through the fleet safely. Later that night a gale came up and scattered

The trip from Charleston to New York City normally takes 5-6 days in a

January 25, 2013-May 3, 2013 Heit, Judi. Schooner Patriot and the Mystery of Theodosia Burr Alston – January 1813. Web: North Carolina Shiporecks. September 27, 2018.

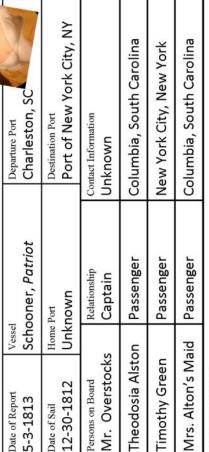
STUDENT READERS: ARTIFACTS

Students read a collection of 48 artifacts including Vessel Incident Reports, Aircraft Accident Reports, letters, newspaper articles, and ship's logs as they dig for the truth of the Bermuda Triangle.



Vessel Incident Report

US Coastal Protection



left Charleston, South Carolina, bound for New York City. She was going to visit her father, Aaron Burr, for the holiday. A family friend and her Theodosia Alston, wife of the governor of South Carolina, John Alston, maid traveled with her. She brought along a painting of herself as a Christmas present to her father.

States government. The guns were stowed below deck and the yacht's blockading the coast of South Carolina. Governor Alston asked the enemy for safe passage for his wife's boat. This was granted. The schoo-The United States was at war with Great Britain. The British navy was ner, Patriot, had just returned from a privateering run for the United name was painted on the bow so the British could easily see her. On January 2, 1813 the British fleet stopped the schooner off the coast through the fleet safely. Later that night a gale came up and scattered of Cape Hatteras, North Carolina. She was given permission to pass the British fleet.

The trip from Charleston to New York City normally takes 5-6 days in a

Signature of the spector

www.ThematicTeacher.com

January 25, 2013-May 3, 2013

Dates of Inspection

Heit, Judi. Schooner Patriot and the Mystery of Theodosia Burr Alston ~ January 1813. Web: North Carolina Shipwrecks. September 27, 2018.

http://northcarolinashipwrecks.blogspot.com/2012/04/schooner-patriot-and-mystery-of.html



US Coastal Protection, Page 2 Vessel Incident Report

Investigation Report, Cont. from Page 1.

the boat, Governor Alston and Mr. Burr were frantic. "Another mail and beginning of the month. The state of My mind is dreadful!" the goverschooner of this size. After two weeks without hearing anything from still no letter! I hear, too, of rumors of a gale off Cape Hatteras at the

search for the missing yacht. He did not send anyone to look for her on Mr. Burr sent searchers to the Bahama Islands and to Bermuda to the Outer Banks of North Carolina.

Theodosia Alston, her friends, and the schooner Patriot were never heard from again. They vanished without a trace.

hurricane-force winds in the early hours of Sunday... The Patriot probacape this battering, which continued until midnight, it then faced near Cape Hatteras, North Carolina, and sank. "If the ship managed to es-The ship probably ran into a gale on January 2, 1813, off the coast of bly sank between 6 p.m. Saturday [January 2] and 8 a.m. Sunday [January 3]." James L. Michie, a South Carolina archeologist.

it walk on the shoal. Then they would kill the crew and steal the booty. Payne, who killed everyone on board including, "a woman who was obshowed the Patriot had been captured by a pirate named John Howard the shoals by hanging a lantern around the neck of a horse and making trouble or looted those that had wrecked. They often lured ships onto In 1833 a man in Alabama confessed that he took part in attacking the walk the plank. Mrs. Alston, he said, walked quietly and calmly off the viously a noblewoman or a lady of high birth." It's said he made them Pirates living near Nags Head, North Carolina, often attacked ships in Patriot. Mr. J.A. Elliott of Norfolk, Virginia said he found papers that

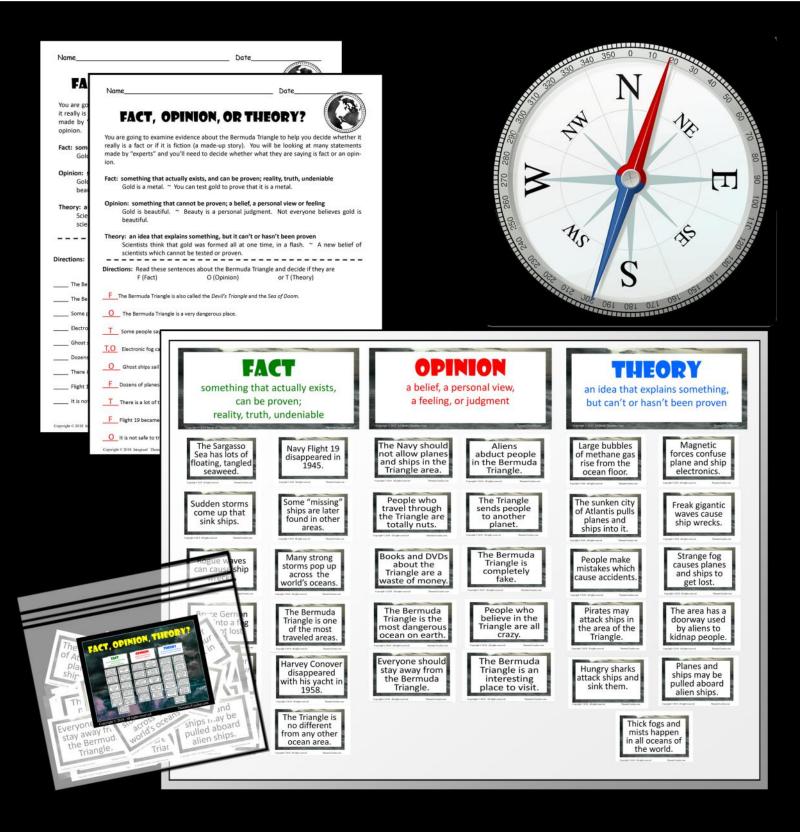
It is rumored that pirates stole her painting and sold it.

Name	Date	Name_	Date
MATHEMATICAL TRIANGULAR	V	MATHEMATICAL MYST TRICKY TRIANGI	TERIES 2 SOLVED
	can be used to make an equilateral triangle. Study the rtriangular numbers as you can, Label each one as shown.	Using just the numbers 1-9, arrange them so that each side of the may only use each number one time per puzzle. You may use scr	
$T_1=1$ $T_2=3$ $T_3=6$	T ₄ =10 T ₅ =15 T ₆ =21	17	19
Name	MATHEMATICAL MYS TOOTHPICK TRIA	/ \ 21 \	MATHEMATICAL MYSTERIES 2 TRICKY TRIANGLES ANSWERS TRICKY TRIANGLES ANSWERS TO THE PROPERTY OF THE PROPERTY O
7,11 7,13 7,14 7,10 7,10 7,10 7,10 7,10 7,10 7,10 7,10	All triangles have 3 sides, 3 vertices, and 3 angles. That's v TRI means "3". (Remember that tricycle you used to ride- wheels? That was fun!) Using toothpicks on your desktop make each triangle, draw it on the paper. (It doesn't have	-the one with the three b, see if you can make the following triangles. After you	8 8 9 9 9 4 9 19 0 19 0 19 0 19 0 19 0 19 0
ate	each ally?	sing 5 toothpicks. Make 5 triangles using 9 toothpicks. Number each line to show 9. share with the	21 6 3 7 2 9 7 20 6 23 2 23 7 8 9 1 9 1
18.87 18.98 18.9	and vertices in different colors. Arrange toothpicks to make a five-sided star out of triangle		Conyou means a hingle game of your own to share with the class? Tomas 1241 Report Theories - Staphnesses
Name MATHEMATICAL PASCAL'S TI	How many toothpicks did you use? How many triangles are there? What is the inside shape? How many more toothpicks would you need to change the center into triangles? Name	MYS' FLYI	TERIES 4 ADVENTURE NG
Blaise Pascal was a mathematician who came up probability. He was born in France in 1623 and He was a pretty amazing dude. Check out this tr	died	first encour m Andros Is an fly at a he traveler	nd fog during a couple of ter found him at Miami Island, a distance of 250 maximum speed of 195 d 250 miles in 47 minutes? How many
1 1 1 3 1 4	2 Move 4 toothpicks to Copyright © 2018 Integrant! Thomasics 6 4 1	n a different color. re altogether?	$\frac{47}{60} = \frac{X}{100}$ So, 4,700 = 60X
MATHEMATICAL MYSTERIES 3 PASCAL'S TRIANGLE ANSWERS	Johns Manufachia mela Laridam. sama ina lamari filasa na Jandan	O miles in 47 minutes, so how many miles in 47 minutes, so how mil	X MATHEMATICAL MYSTERIES 4 ANSWERS SOME FAST FLYING Bous General flew through some very strategy clouds and hig during a cought of
probability. He was been in France in EG2 and clied in 1962. How side was he when he direct?	s you can find. (Feel free to use color and mark on the	d. Bruce's explanation is that he flew through a time was weightless for about 10 minutes. What do yo	A the greatest part has been that bet A the greatest part has been in C menders Comparingly the been frequency Comparingly the been frequency O' 200 4-1000 and 00' 4-1000 for Now, device 4000 by 60 th ded X, X = 78,811, O' measure in 31' 4 of minute for International been frequency A the first 250-miles and Frequency bear been frequency O' 200 4-1000 for O' 200 4-1000 for Now, device 15,000 by 0' 10 for (X = 10,000 o CR) A the first 250-miles and Frequency be too frequency O' 0' 0' 0' 0' 0' 0' 0' 0' 0' 0' 0' 0' 0'
Limit of the substrate plan. Lits of the parties you can be plan the to you evaluate and mark at the Stratege. Can because the case of the first is and also diseased. Can be compared to the control of the first is and also diseased. All the conditions and the control of th	onto a large sheet of drawing paper, and take it as far as	e. What is your conclusion about Bruce's experience	Actions will see, Acting any sessors that made sets with what is given. 6. Shore's explanation in that the few through a time were. The first is place speed up and we employed for few old. If we wan, that is so we then doed this from your few own that the production and the sets of the does not seen and the sets of
b. All to the installing condens. See allows: 1. When first the register of the strength onto a large sheet of directing paper, and take it as the as you can. How did by the that it is a first order. 2. The register is registered in the register of the register of the register of the register. The register of the r	www.ThematicTeacher.com	Copyright © 2018 Integreat: Thematic Units All rights reserved.	Name a year concern about executs operative? Attents will vary. Accept any assumes that make asses with what is given. Tampe 1 to 9 hapes from the striple wind.

MYSTERIOUS MATH

rresn	Bubbles	Sait	th	the objects.		
		7 2	Results:	Items Tested	C	
			Conclusion:	Explain what happen	ed and why	
ways happen no	matter who tries it:		Do you think	k the same thing will a	lways happen no mat	
	iangle?			pply to ships and plane	* 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
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CE ACTIVI



FACT, OPINION, THEORY?

Activities and research give students practice in analyzing and evaluating information.

TRIANGLE ART

Materials:

- white drawing paper
- · pencil
- · ruler or straight edge
- coloring materials (crayons, colored pencils, markers)



Directions:

 Lightly draw lines on the paper using a pencil and a ruler. Divide the lines so that every shape on the page is a triangle. Make large and small triangles. Stop when you like the look. You don't need a lot.



 Inside each triangle draw geometric shapes and images about the facts, opinions, and theories you have learned about the Bermuda Triangle. Make each triangle different from the others. Waves, clouds, water spouts, shark fins, sun, fog, and bubbles are a few ideas you can think about.



 Color your drawing with markers, of Think about the true colors of tha meanings of colors (yellow means of ect.) as you color in each image. To one can enjoy your creation.

 If you want to frame your project struction paper a little larger than

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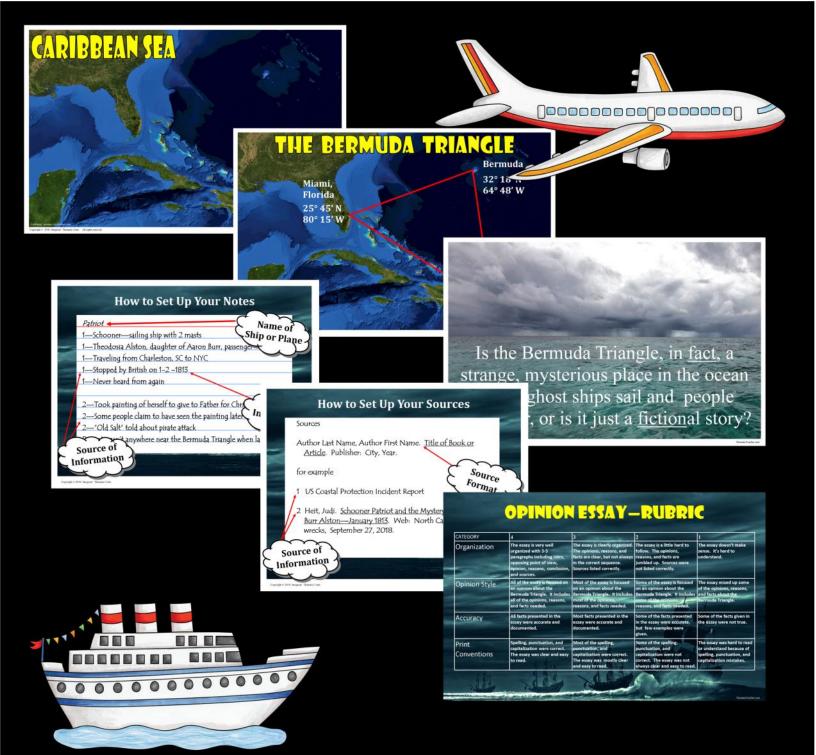
All sights





ART PROJECT

Students read and follow directions to make a triangular collage of images of the Bermuda Triangle.



POSTERS

Posters (about 11X17) help students focus on the primary question, and provide instruction on research skills.

References

Bingham, Jane. The Bermuda Triangle. Heinemann Raintree: Chicago, 2013.

CNN. <u>Is this what's behind the Bermuda Triangle mystery?</u> Web: 9/19/2018. https://www.cnn.com/videos/world/2016/10/23/bermuda-triangle-clouds-weather-science-channel-jnd-orig-vstan.cnn Interesting short video about "air bombs" that may be responsible for mysterious disappearances of ships and aircraft from the Science Channel.

Donkin, Andrew. Bermuda Triangle. DK Publishing: New York, 2000.

Gernon, Bruce, and MacGregor, Rob. Beyond the Bermuda Triangle. New Page Books: Wayne, NJ, 2017.

Kusche, Larry. The Bermuda Triangle Mystery—Solved. Prometheus Books: New York, 1986, 1995.

Pelley, Scott. 60 Minutes: Lost in the Bermuda Triangle. CBS: January 3, 2016, via web, 9/19/2018. https://www.cbsnews.com/news/60-minutes-el-faro-lost-in-the-bermuda-triangle/

Quasar, Gian J. Into the Bermuda Triangle. McGraw Hill: Camden, Maine, 2005.

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