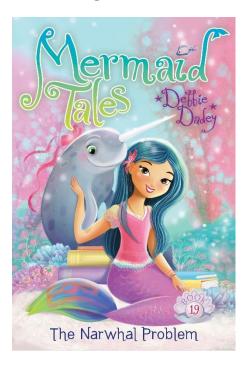


A Teaching Unit



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www.debbiedadey.com and www.Facebook.com/debbiedadey

Other books in the Mermaid Tales series include (also available in hardback and digital):

Trouble at Trident Academy ISBN-13: 978-1442429802

Battle of the Best Friends ISBN-13: 978-1442429826

A Whale of a Tale ISBN-13: 978-1442429840

Danger in the Deep Blue Sea ISBN-13: 978-1442429864

The Lost Princess ISBN-13: 978-1442482579

The Secret Sea Horse ISBN-13: 978-1442482609

Dream of the Blue Turtle ISBN-13: 978-1442482630

Treasure in Trident City ISBN-13: 978-1442482661

A Tale of Two Sisters ISBN-13: 978-1481402576

The Polar Bear Express *ISBN-13*: 978-1481402606

Wish Upon a Starfish ISBN-13: 978-1481402637

The Crook and the Crown ISBN-13: 978-1481440752

Twist and Shout ISBN-13: 978-1481440783-

Books vs Looks ISBN-13: 978-1481440813

Flower Girl Dreams ISBN-13: 978-1481440851

Ready, Set, Goal! ISBN-13: 978-1481487085

Fairy Chase *ISBN-13* 978-1481487115

The Narwhal Problem was originally published in June 2019 by Simon and Schuster *ISBN* 978-1481487146

Illustrations by Tatevik Avakyan



Book Summary:

A narwhal is visiting Trident City. One merstudent will get to be the narwhal's buddy for the day. Kiki wants more than anything to be that merstudent, but there's a problem. She has to win a code contest and she's never even seen a code before!

The Narwhal Problem

Meet the author:

Debbie Dadey is the author and co-author of 165 children's books, including **The Mermaid Tales** and **The Adventures of the Bailey School Kids books.** A former librarian and teacher, Debbie and her husband, Eric, live in Tennessee with a little



black dog and a big brown dog. One of her other books is about writing for children, she wrote it with her friend Marcia T. Jones. **Writing for Kids The Ultimate Guide**

is avaiable exclusively on Amazon. Find out more about her at www.debbiedadey.com and www.Facebook.com/debbiedadey. You can also find Debbie on Twitter and Pinterest. She would love to visit or Skype with your classroom.

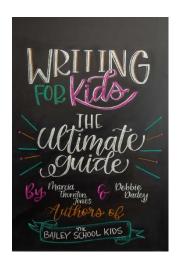


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DEBBIE DADEY BOOKLIST

Here is a selected list of books by Debbie Dadey. For a complete list of titles visit www.debbiedadey.com

Vampires Don't Wear Polka Dots

Buffalo Bill and The Pony Express

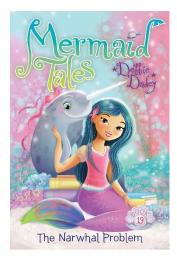
Slime Wars

The Keyholder series

Marty the Mudwrestler (now as an ebook)

Dracula Doesn't Drink Lemonade

Shooting Star Annie Oakley the Legend



Pre-reading activities: Before reading **The Narwhal Problem** complete some or all of the activities below to peak interest in the story; as well as increasing comprehension, reading, and predicting skills. The next two pages have pre-reading activities to try as well.

- 1. Bring whale books into the classroom and challenge students to find out which whale is the largest and the smallest. Let students pick their favorite.
- 2. Ask students where they think whales live. Discuss what a whale's habitat might be like. Could they live in the desert? In the woods?
- 3. Challenge students to learn about a type of code or cipher to share with their class. You may wish to use the following form.
- 4. Challenge students to give classmates a cipher to figure out. They must give a key and it must be appropriate! You can post one a day.

CCSS.ELA-LITERACY.CCRA.W.2





Pre-reading activity/research

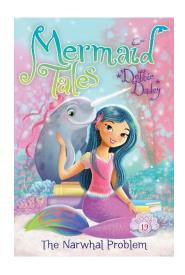
Name:		Date:		The Narwhal Problem
Find four interesting facts about whales and write them here:	Fact one:	Fact two:	Fact three:	Fact four:
Write the names of the books where you found the interesting facts here:	Book title: Author:	Book title: Author:	Book title: Author:	Book title: Author:
W HA	AT FACT DII	D YOU FIND	MOST INTE	RESTING?

E/LA COMMON CORE STANDARDS FOR READING GRADE 3 RI.3.5

Answers will vary.

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THE NARWHAL PROBLEM Pre-reading activity

In the past letters were sent in a code to avoid someone learning a secret message. Sometimes numbers or symbols stood for letters. Today, computer and phone users can reply on encrypted codes to keep details of emails secret. Create a secret (appropriate) message to share with your class using the code below. Use the back to make

up your own code for your friends to figure out. Don't forget to make a key.

Use this space to write your secret code, using the number one to stand for the letter a. If this is too tricky, look at the chart in chapter five.

CCSS.ELA-Literacy.RL.3.10

Answers will vary







Pre-reading activity

New words To Learn for The Narwhal Problem Chapter 1

conservatory	Calypso	university
preservation	ordinary	scientist

Chapter 2 and 3

squished	Pinocchio	cipher
porpoise	information	languages

Chapter 4 and 5

pillars	hunched	tentacles
cryptology	catastrophe	solving

Chapter 6 and 7

symbiotic relationships	honesty	chatter
participate	judging	endangered

Chapter 8 - 11

whooshed	curtsy	tilted	grouchiness	icky
grant	slender	species	dorms	algae
request	auditorium	embarrassed	polluting	Arctic Ocean

CCSS.ELA-Literacy.L.3.4

E/LA Common Core Standards for Reading Grade 3 RL.3.4

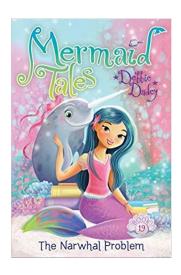




FUN WAYS TO LEARN VOCABULARY WORDS FOR THE NARWHAL PROBLEM

- Fill a tray with colored sand and let students practice writing the vocabulary words with their fingers in the sand.
- Let students design their own whales and put a vocabulary word on each one.
 Use them to decorate the classroom door. Upon entering the room students must touch a whale and say a word.
- Encourage students to write a silly story with as many of the vocabulary words as possible.
- Use the free comic strip form available at https://thisreadingmama.com/vocabulary-words-comic-strip/.

CCSS.ELA-Literacy.L.3.4







NAME:



DATE:

THE NARWHAL PROBLEM

Chapter 1/marine biology and

comprehension

Narwhals are interesting sea creatures. Answer true and false to the questions below BEFORE you read The Narwhal Problem. Then try them again AFTI learning more about Narwhals through research and by reading THE NARWHAL PROBLEM. Compare your answers to see how much you have learned.
Some narwhals have a really long tooth:
Adult narwhals are heavier than a school bus:
Unicorns live in the Indian Ocean:
Narwhals are a porpoise:
Narwhals are not endangered:
Global warming does not hurt narwhals:
Only female narwhals grow long teeth:
Narwhals have a long horn growing out of their foreheads:
CCSS.ELA-Literacy.RL.3.1 Answers will vary on first chance. See next page for correct answers.







Chapter 1 Answers

NAME:	DATE:	
	T0115	
Some narwhals have a really long tooth:	TRUE	
Adult narwhals are heavier than a school bus:	TRUE	
Unicorns live in the Indian Ocean:	FALSE	
Narwhals are a porpoise:	TRUE	
Narwhals are not endangered:	FALSE	
Global warming does not hurt narwhals:	FALSE	
Only female narwhals grow long teeth:	FALSE	
Narwhals have a long horn growing out of their foreheads:	FALSE	
There is nothing humans can do to help narwhals:	FALSE	

CCSS.ELA-Literacy.RL.3.1





Chapter 2/RESEARCH

NAM	ME: DATE:	
	The Narwhal Problem, Kiki is excited to meet a famous scientist. Find information about a famous scientist ps you will meet her or him some day!	ntist.
1.	Name two famous scientists.	
2.		
-		
3.	Pick another scientist who is alive today	-
4.	Why are they famous?	-
	. Find out five things about this living scientist, including where they live and how old they are. The five things on the back of this page.	— Write
/LA Com	mmon Core Standards for reading Grade 3 Rl.3.1 and 3.10 ANSWERS WILL VARY	

Pebbie adely childrens author

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Chapter 3/History; comprehension; subtraction

NAIVII	E: DATE:
also end languag No ene age of i	World War II (WWII) began in 1939 when German troops invaded Poland. Soon Germany invaded other es too. The United States and the countries that untied together to fight Germany were called Allies. The Allies ded up fighting Japan. To send secret messages, the Allies used codes and ciphers. Because the Navajo ge was unknown to anyone but Navajo Indians, it became a secret way of sending messages throughout the war. my ever figured out the code! Fleming Begaye Sr. was one such Code Talker. He recently passed away at the minety-seven. There were about four hundred Navajo Code Talkers during World War II, but Cherokee and w Indians began the practice in World War I.
Answe	er the following questions after reading the paragraph above.
1.	Why do you think the United States used Navajo Indians to send codes during WWII?
2.	Name two Indian tribes that helped defeat enemies in the world wars through using codes.
3.	What was the United States and its friends called during World War II?
4.	What country started WWII?
5.	Find out two more interesting facts about Navajo Indians.
	1
	2
6.	How many years ago did World War II begin?
	E/LA Common Core Standards for reading Grade 3 Rl.3.1 CCSS.MATH.CONTENT.3.NBT.A.2

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THE NARWHAL PROBLEM Chapter 3/History; comprehension; subtraction

NAM	E: ANSWERS	DATE:
too. The ended was un enemy of nine	the United States and the countries that untied up fighting Japan. To send secret messages, the known to anyone but Navajo Indians, it becausever figured out the code! Fleming Begaye S	n troops invaded Poland. Soon Germany invaded other countries together to fight Germany were called Allies. The Allies also he Allies used codes and ciphers. Because the Navajo language he a secret way of sending messages throughout the war. No r. was one such Code Talker. He recently passed away at the age rajo Code Talkers during World War II, but Cherokee and
Answe	er the following questions after reading th	e paragraph above.
1.	Why do you think the United States use	d Navajo Indians to send codes during WWII?
	ANSWERS WILL VARY, BUT SHOULD REFLEC	T THAT NO ONE ELSE KNEW THE NAVAJO LANGUAGE.
2.	Name two Indian tribes that helped defe	at enemies in the world wars through using codes.
	Navajo, Cherokee or Choctaw Indians (choc	ose 2)
3.	What were the United States and its frie	nds called during World War II? Allies
4.	What country started WWII? Germany	
5.	Find out two more interesting facts about	t Navajo Indians. ANSWERS will vary
	1	
	2	
6.	How many years ago did World War II I used. Current year minus 1939.	pegin? ANSWERS will vary depending on the year this page is

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E/LA Common Core Standards for reading Grade 3 RI.3.1



CCSS.MATH.CONTENT.3.NBT.A.2

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Chapter 4/library research

NAM	E: DATE:
	In The Narwhal Problem, the merkids go to the library to find information. Use your library to search for the following:
	Find a book on narwhals and write down the call number:
\$	What is the name of a book that has a mermaid story in it? Hint-check the 398.2 section of your library or the catalog.
\$	Look for a book about the ocean. On what page does it have information about the Arctic?
	Write down the author's name of a book about whales.
	How many books does your library have about porpoises?
	Find a book about blue whales. When was it published?
	Look in an encyclopedia and find a picture of a pretty fish. Draw it on the back.
<u>\$</u>	Many people today use the Internet to look up information. Is everything you read on the Internet true?
<u>\$</u>	If your teacher gives you permission, look up two global warming facts on the Internet from a source you trust. Write them on the back.

CCSS.ELA-Literacy.RI.3.5





Chapter 4/library research

NAM	E: Answers	DATE:
	In The Narwhal Problem, the merk library to search for the following:	ids go to the library to find information. Use your
2	shorten this)	down the call number: 599.53 (some libraries will a mermaid story in it? Hint-check the 398.2 g. Answers will vary
۵	Arctic?	On what page does it have information about the Answers will vary
	Write down the author's name of a	book about whales. Answers will vary
<u>\$</u>	How many books does your library	have about porpoises? Hopefully lots!
	Find a book about blue whales. Wh	nen was it published? Answers will vary
<u>\$</u>	Look in an encyclopedia and find a Answers will vary	picture of a pretty fish. Draw it on the back.
	•	to look up information. Is everything you read onNo
\$	If your teacher gives you permission from a source you trust. Write then	n, look up two global warming facts on the Internet n on the back. Answers will vary
CSS EI	A-Literacy RL 3 5	

CCSS.ELA-Literacy.RI.3.5





Chapter 5/codes

NAME: DATE:	
-------------	--

Use the chart below to figure out this coded joke. The bottom shaded part is the code.

XIBU IBQQFOT XIFO ZPV UISPX Z SPDL JO XBUFS?

JU HFUT XFU!

A	В	С	D	Е	F	G	Н	I	J
В	С	D	E	F	G	Н	I	J	K

K	L	M	N	О	Р	Q	R	S	Т	U	V	W	X	Y	Z
L	M	N	0	Р	Q	R	S	Т	U	V	W	X	Y	Z	A

CCSS.MATH.CONTENT.3.MD.B.3





Chapter 5/codes

NAME: Answer DATE:

What happens when you throw a rock in water?

It gets wet.

 $\underline{CCSS.MATH.CONTENT.3.MD.B.3}$



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Chapter 6/ symbiotic relationship

1E:	DATE:
In The Narwhal Pr	roblem symbiotic relationship is mentioned. Use your research skills to find out the following:
Use a dictionary to	o find and write a definition of symbiotic relationship.
Use an encycloped	ia to find three types of symbiosis. Write those three below.
1	
2	
3	
Pick one type of sy	mbiosis and learn about it online or with a library book . Tell what it is here.
Draw a picture show	wing that type of symbiosis on the back of this worksheet.
	CCSS.ELA-Literacy.L.2.3 CCSS.ELA-LITERACY.L.3.1 CCSS.ELA-LITERACY.L.3.2 L.3.3 CCSS.ELA-Literacy.RL.3.4

Pebbie acev





Chapter 6/ symbiotic relationship

NAME:	ANSWERS	DATE:

In The Narwhal Problem symbiotic relationships is mentioned. Use your research skills to find out the following:

Use a dictionary to find and write a definition of symbiotic relationship.

Something like: A symbiotic relationship is where two organisms from different species interact.

Use an encyclopedia to find three types of symbiosis. Write those three below.



- 1. _____mutualism
- 2. commensalism
- 3. _____parasitism

Pick one type of symbiosis and learn about it online or with a library book. Tell what it is here.

Answers will vary, but should relate to one of the following. Mutualism is where both organisms benefit. Commensalism is where one benefits while the other is not harmed. Parasitism is where one benefits and one is hurt.

Draw a picture showing that type of symbiosis on the back of this worksheet. Answers will vary, but should reflect one of the above.

CCSS.ELA-Literacy.L.3.1 CCSS.ELA-Literacy.L.3.2 CCSS.ELA-LITERACY.L.3.1 CCSS.ELA-LITERACY.L.3.2 CCSS.ELA-LITERACY.L.3.3 CCSS.ELA-LITERACY.L.3.3 CCSS.ELA-LITERACY.L.3.4







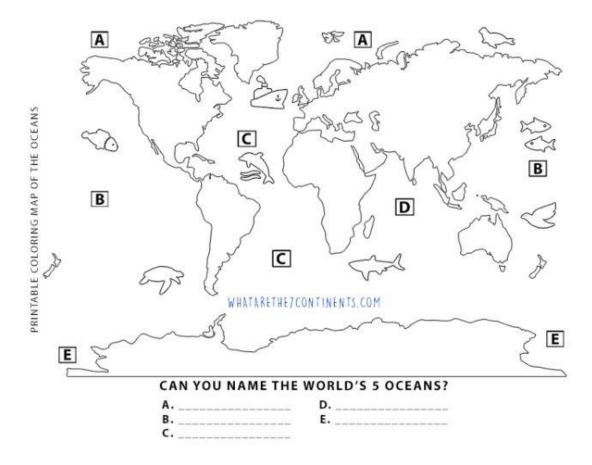
Chapter 7/Geography

NAME:	DATE:

Narwhals live in the Arctic Ocean near Canada, Greenland, Norway, and Russia. Many narwhals spend their winter in the Baffing Bay-Davis Strait. The Arctic Ocean is the smallest of the world's five major oceans. Name the other four.

1	 2	
3.	4.	

Now, put all the oceans on the map key below. Color the Arctic Ocean blue and put a star on the US.



Pebbio adey



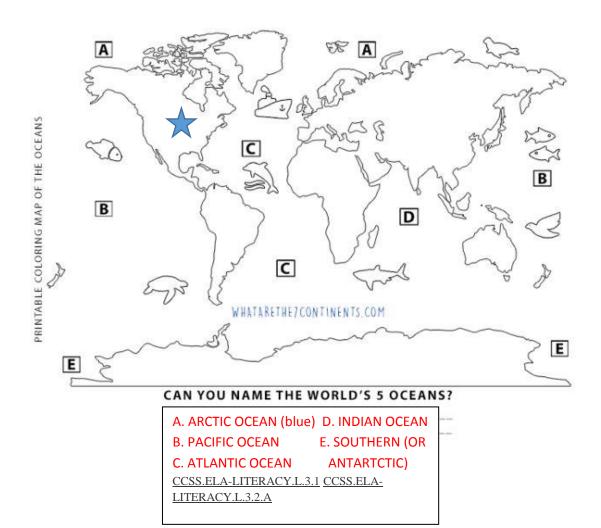


Chapter 7/Geography

NAME: Answers DATE:

Narwhals live in the Arctic Ocean near Canada, Greenland, Norway, and Russia. Many narwhals spend their winter in the Baffing Bay-Davis Strait. The Arctic Ocean is the smallest of the world's five major oceans. Name the other four.

Pacific, Atlantic, Indian, and Southern. Now, put all the oceans on the map key below. Color the Arctic Ocean blue and put a star on the US.





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Chapter 8

NAME: DATE:

In *The Narwhal Problem*, the merstudents visit The Conservatory for the Preservation of Sea Horses and Swordfishes. In the human world, conservatory is usually a place to study music or a place used to grow plants. In the merfolk world, it is a place for sea creatures to be safe. There are many marine animals that are endangered like the narwhal. Look at the list below and circle the animals that you think might be endangered, vulnerable, or threatened.

African elephant Arctic Fox

Beluga Black Rhino

Black Spider Monkey Blue Whale

Dugong Giant Panda

Great White Shark Hippopotamus

Indian Elephant Jaguar

Leatherback turtle Malayan Tiger

Narwhal Polar Bear

Sea Lion South China Tiger

Sumatran Orangutan Vaquita

Compare your answers with friends. Make a graph of the top three animals they chose as endangered, vulnerable, or threatened. Your teacher will share with you which ones are endangered, vulnerable, or threatened according to the World Wildlife Organization. Choose one of the animals listed above and tell about it on the back of this page.

CCSS.ELA-LITERACY.L.3.2 CCSS.MATH.CONTENT.2.MD.D.10 CCSS.MATH.CONTENT.3.MD.B.3





Chapter 8

NAME: answers-ALL SHOULD BE CIRCLED! DATE:

In *The Narwhal Problem*, the merstudents visit The Conservatory for the Preservation of Sea Horses and Swordfishes. In the human world, conservatory is usually a place to study music or a place used to grow plants. In the merfolk world, it is a place for sea creatures to be safe. There are many marine animals that are endangered like the narwhal. Look at the list below and circle the animals that you think might be endangered, vulnerable, or threatened.

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Black Spider Monkey Blue Whale

Dugong Giant Panda

Great White Shark Hippopotamus

Indian Elephant Jaguar

Leatherback turtle Malayan Tiger

Narwhal Polar Bear

Sea Lion South China Tiger

Sumatran Orangutan Vaquita

Compare your answers with friends. Make a graph of the top three animals they chose as endangered, vulnerable, or threatened. Your teacher will share with you which ones are endangered, vulnerable, or threatened according to the World Wildlife Organization. Choose one of the animals listed above and tell about it on the back of this page. ANSWERS WILL VARY.

CCSS.ELA-LITERACY.L.3.2 CCSS.MATH.CONTENT.2.MD.D.10 CCSS.MATH.CONTENT.3.MD.B.3







Chapter 9

NAME: DATE:

In *The Narwhal Problem*, Nadine is a young narwhal, also known as a calf (baby cows are also called calves). Use the library or Internet to help you match the offspring below with their parent.

fry fox joey lion dog pup Cub deer fish maggot kangaroo kit fawn bear tadpole fly frog cub kid goat



foal

horse

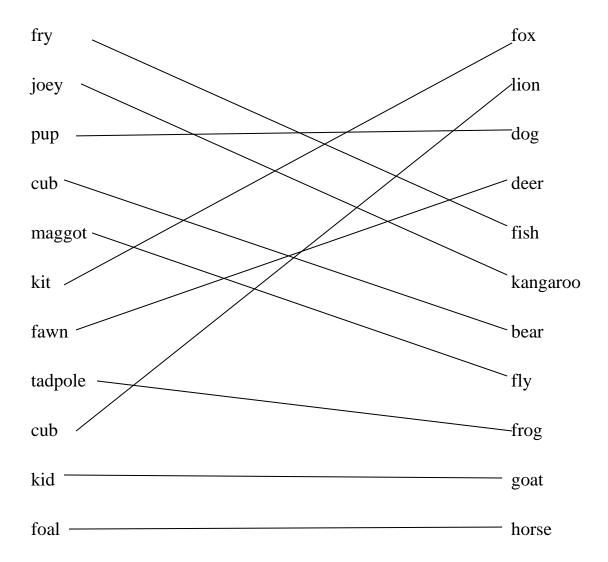




Chapter 9

NAME: answers DATE:

In *The Narwhal Problem*, Nadine is a young narwhal, also known as a calf (baby cows are also called calves). Use the library or Internet to help you match the offspring below with their parent.









Chapter 10/creative writing

NAM	E: DATE:
	In The Narwhal Problem , Rocky thinks Nadine's long tooth is for fighting and Wanda thinks it is to break ice. Many years ago, storytellers used myths to explain something mysterious. Now, you can decide why narwhals have long teeth. In the space below and on the back, make up a silly, funny, or serious story of how the narwhal came to have its long tooth.

CCSS.ELA-Literacy.L.2.1 CCSS.ELA-Literacy.L.2.3 CCSS.ELA-LITERACY.L.3.1 CCSS.ELA-LITERACY.L.3.2 CCSS.ELA-LITERACY.L.3.3 CCSS.ELA-LITERACY.L.3.2 CCSS.ELA-LITERACY.L.3.2 CCSS.ELA-LITERACY.L.3.2 CCSS.ELA-LITERACY.L.3.3 CCSS.ELA-LITERACY.L.3.2 CCSS.ELA-LITERACY.L.3.3 CCSS.ELA-LITERACY.L.3 CCSS.E



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Chapter 11/computer coding

NAME: DATE:

Merfolks don't have computers, but humans do! Did you know that computers use codes to work? The codes tell the computer what to do. By learning computer coding or programming, you can create apps and websites. You can even learn how to draw shapes and make them move! JavaScript is the most popular computer code (or language). Ask your teacher or parent to help you visit websites that have games and activities about computer coding, like

https://mommypoppins.com/coding-kids-free-websites-teach-learnprogramming and http://www.crunchzilla.com/code-monster. You may even want to take a class to learn more.









Chapter 12/compare and contrast

NAME:	DATE:	
	orpoises are whales. There are many different types of whales. Select that are different about the whale you se	
2	Whales: How are they the same? 1	

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Chapter 12/compare and contrast

NAME:	answers will vary depending on whale chosen	DATE:
-------	---	-------

Narwhals are porpoises. Porpoises are whales. There are many different types of whales. Select one. Write three things that are unique about narwhals, three things that are different about the whale you selected, and three things that are the same.

Whales: How are they the same? My Whale: How is it different? My whale is a This could vary, but will probably include a long tooth, lives in the Arctic, are shy, or are endangered. Core curriculum Key Idea 3:The observations made while testing proposed explanations, when analyzed using conventional and invented methods, provide new insights into

phenomena. S3.1 Organize observations and measurements of objects and events through classification

and the preparation of simple charts and tables.



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