



RIVERS COALITION AND RIVER KIDZ SAY PARADISE IS HOME

The Indian River Lagoon is one of the most biologically diverse estuaries in the continental U.S. supporting more than 4000 species of plants and animals....700 species of fish, 300 species of birds, and 1300 species of plants.

TEACHER'S EDITION

Dear Future Leaders,

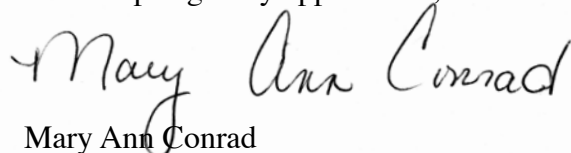
As you carefully look at the cover of this book, you will realize how fortunate we are to live in such a beautiful place surrounded with rivers, oceans, and lakes. We also have many unique birds, plants, and animals that share our environment. This special book was created with the hope that each of you will help us to protect this treasured place we all call home.

Moving to Jensen Beach at age 4, I later attended Jensen Beach Elementary School. I have watched the Indian River Lagoon change over the last 45 years and am saddened by what is happening to one of my favorite places. I wish you could have seen the river we used to play, swim, fish, and explore in. It was very different many years ago. The water was crystal clear and many animals were found playing in the river. Many families would picnic and enjoy special celebrations at our causeways and on their boats. We even had camping trips with our fifth grade classes on one of the Indian River Lagoon islands. However, this past summer, we were no longer allowed to swim, fish, and explore in what used to be our beautiful, fun-filled river.

This is why I am so excited to share this book with you. I want each of you to learn all about how our river works and why it is important for us to protect it. This knowledge will help you understand the problem so that you can come up with possible solutions.

The river and animals do not have a voice; they are counting on you, our future leaders, to speak up for them! I hope you enjoy this book and then share it with your family and friends to help spread the word that every single person, young or old, has a voice that can make a difference. It is important for all of us to get involved, protect our environment, share our knowledge, and speak out to help save our rivers and waterways. Our current leaders are having a difficult time solving this problem, so maybe some of you will come up with creative solutions and give all of us hope for the future.

Your help is greatly appreciated,

A handwritten signature in black ink that reads "Mary Ann Conrad". The signature is written in a cursive, flowing style.

Mary Ann Conrad
Jensen Beach Elementary School Teacher

Dear Educators and Parents,

Rivers are important in Martin County; it is critical that young people learn about the economic, environmental and historical importance of our waterways and why they are so fragile.

In 1892, area pioneers dug successfully, by hand, the St. Lucie Inlet. This allowed not only transportation, but also helped in creating one of the most ecologically diverse estuaries in the United States as salt water from the Atlantic Ocean mixed with the fresher waters of the Indian River Lagoon and St. Lucie River.

Then in 1923, local, state and federal officials supported the building of a canal from Lake Okeechobee to the St. Lucie River. The local pioneers had great dreams of prosperity in moving cattle, crops, and timber inland to the coasts and across the state. Unfortunately, very soon after, local fisherman noticed the silt, pollution and excess of fresh water, negatively affecting the fishing and tourism industries. The county commission of 1930 asked the state and federal governments that the releases from Lake Okeechobee be stopped.

Unfortunately, during the course of this century, this canal, known as the C-44, was widened and deepened many times by the Army Corp of Engineers. The canal became key in protecting the expanding agriculture area south of the lake, and for providing flood control to this area. So during rain events the “overflow” waters from Lake Okeechobee were released into the St. Lucie and Caloosahatchee Rivers instead of going south to the Everglades.

In the 1940s and 1950s the C-23 and C-24 canals were built in the northern part of the county and connected to the North Fork of the St. Lucie River. These canals insured citrus growers and developers dry land; Port St. Lucie would be build on these lands.

Many people, including famed environmentalist and Stuart News editor, Ernie Lyons fought against these canals and called for the state to return the water flow to the Everglades as nature had intended. Over the years, Stuart residents built a reputation for being protective and outspoken regarding their waterways.

We continue this struggle, as will our children, as the polluted waters of Lake Okeechobee and the other canals continue to potentially destroy what is most dear to us, our rivers. Is there a better way? We think so.

The goal of this booklet is to expose students to the history and challenges of our area while celebrating the paradise we all enjoy in hopes that their young minds will have new ideas; ideas we can't even begin to imagine. This book is dedicated to the kids, because all kids are River Kidz!

Thank you to artist, Julia Kelly, and teacher, Mary Ann Conrad for their work.

Sincerely,



Jacqui Thurlow-Lippisch
River Kidz/Rivers Coalition, 2013



Nic Mader
River Kidz/Rivers Coalition, 2013

LAKE
OKEECHOBEE

River Kidz' Mission Statement:

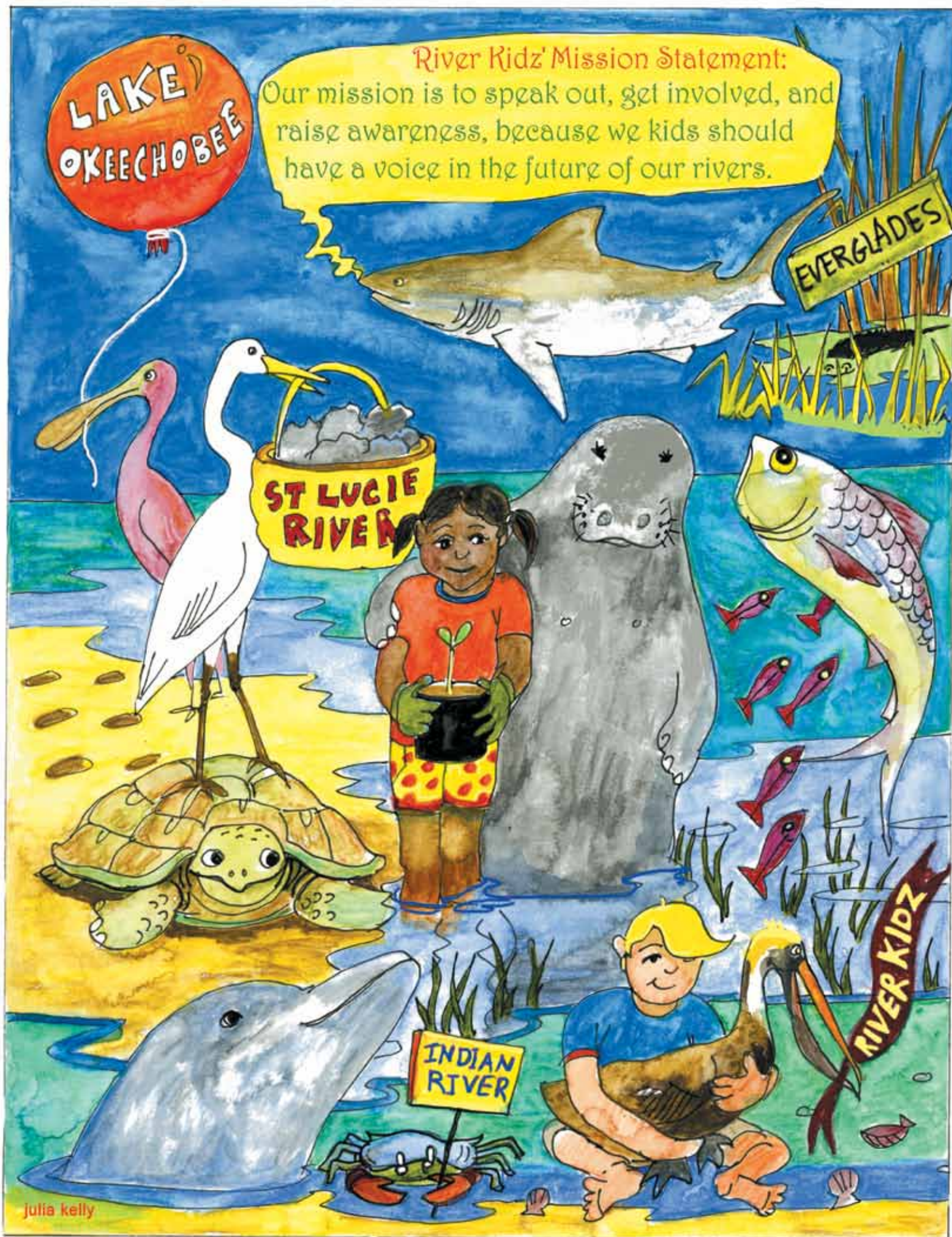
Our mission is to speak out, get involved, and raise awareness, because we kids should have a voice in the future of our rivers.

EVERGLADES

ST LUCIE
RIVER

INDIAN
RIVER

RIVER KIDZ



LIST 5 ANIMALS THAT LIVE IN THE INDIAN RIVER LAGOON:

1. _____
2. _____
3. _____
4. _____
5. _____

**WHAT OTHER LIVING THINGS DO YOU SEE
LIVING IN THE PICTURE?**

WHAT DO THESE LIVING THINGS NEED TO BE HEALTHY?

WHAT CAN BE HARMFUL TO THESE LIVING THINGS?

WHAT IS THE ILLUSTRATOR'S PURPOSE?

Teachers: For each page illustration, we have included key focus points to stress and reinforce with your students. We have also included the Reading Common Core Standards for Informational Text for each page, (the grade level goes after the RI, then the standard listed). We hope that this will help you to plan and stress the important strategies for each page. We also encourage you to share ideas, suggestions or activities that you found successful.

Focus Points:

- *Mission Statement created by students who started River Kidz as a way to help protect our rivers.
- *Animals living in Indian River Lagoon displayed in picture: Spoonbill, egret, bull shark, snook, manatee, turtles, dolphin, crabs, pelicans, clams, fish, oysters
- *Everglades is part of the Indian River Lagoon
- *Plants, many different kinds, however sea grass is very important

Common Core Standards:

RI = (Reading Informational Text)

RI. 1 Reading Anchor 1 Key Ideas and Details

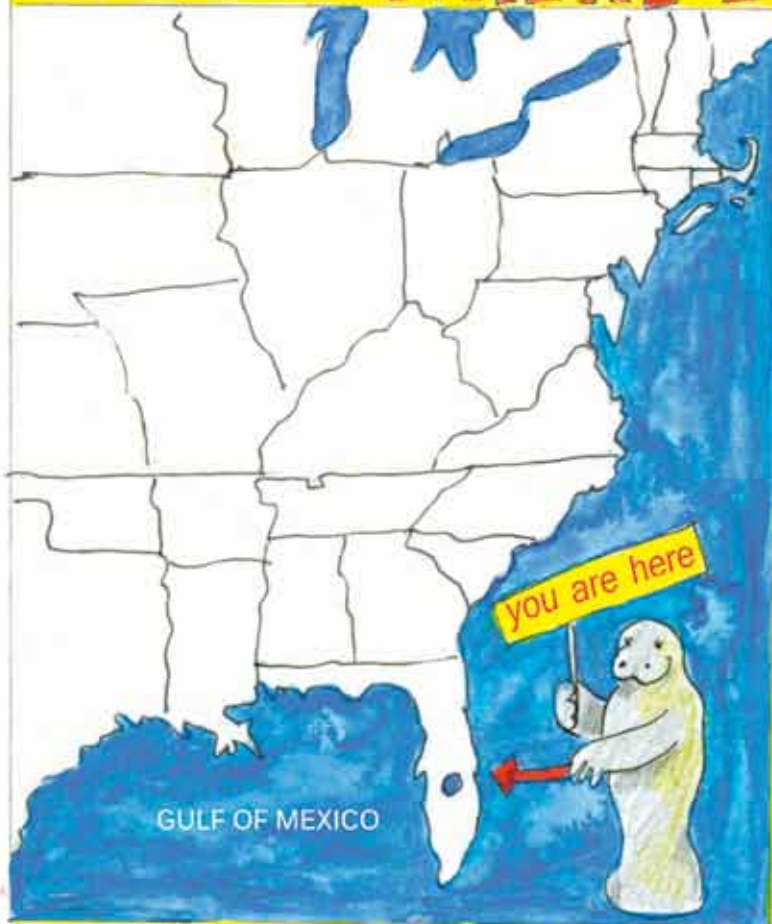
Answer who, what, where, when, why, and how to non-fiction text,
drawing inferences

RI.6 Reading Anchor Standard 6 Craft and Structure

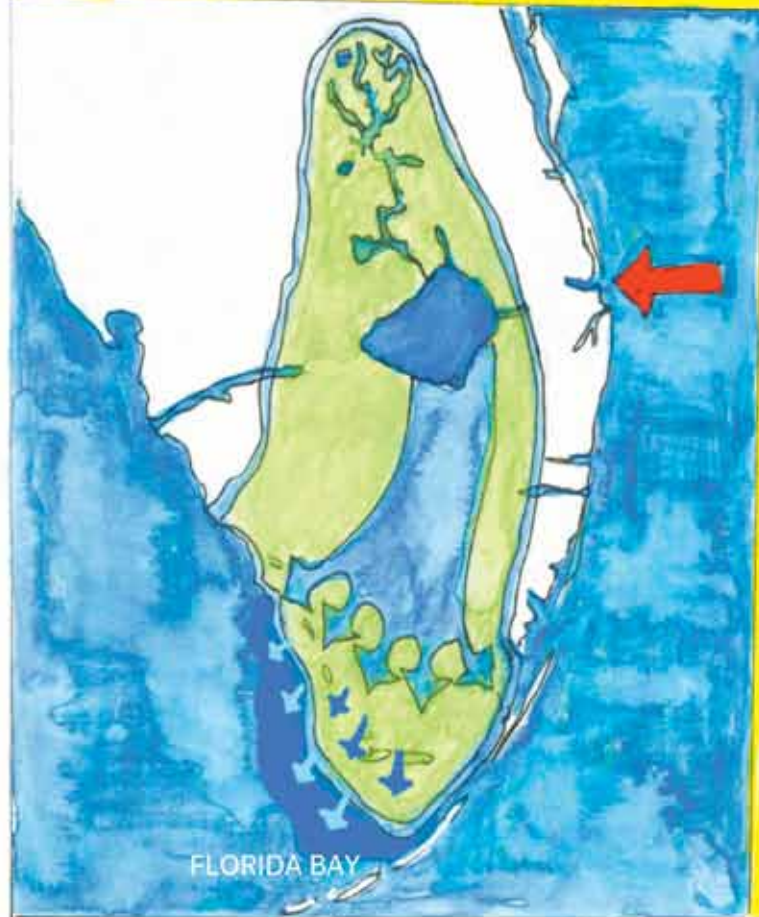
Distinguish between information provided by pictures or other
illustrations and information provided by the words in text.



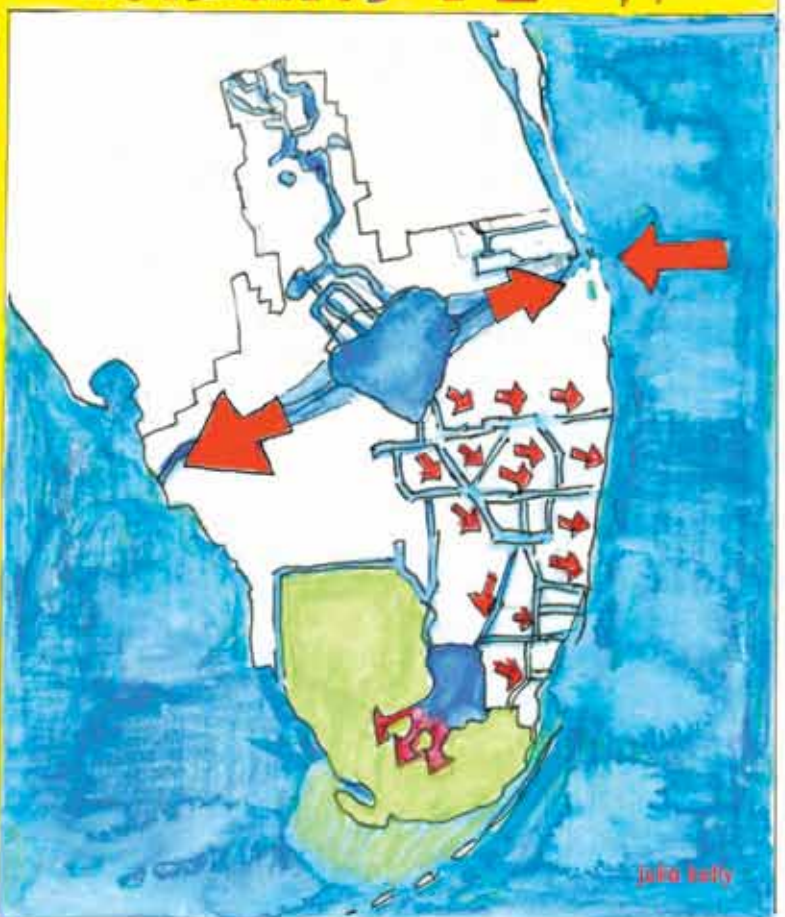
WHERE AM I?



HISTORIC FLOW



CURRENT FLOW



LOOK AT THE MAPS, CAN YOU NAME 3 DIFFERENT BODIES OF WATER NEAR WHERE YOU LIVE?

1. _____
2. _____
3. _____

HOW IS LAKE OKEECHOBEE DIFFERENT FROM THE ATLANTIC OCEAN?

HOW DID THE FLOW OF WATER CHANGE FROM THE LAKE OVER TIME?

THINK ABOUT WHY THE WATER FLOW WAS CHANGED, DISCUSS WITH A PARTNER AND SHARE YOUR IDEAS WITH THE CLASS.

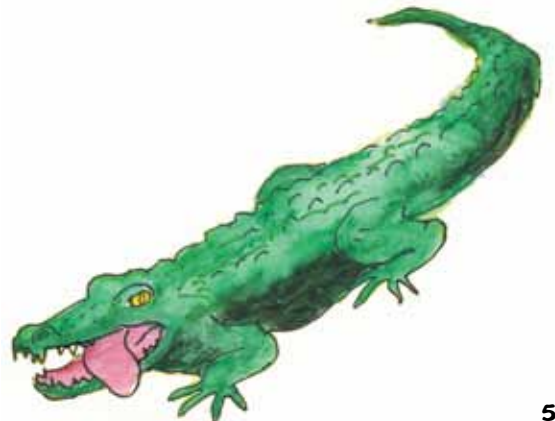
Focus Points:

- *United States, South East part - where we live
- *Lake Okeechobee, St. Lucie Inlet, and Atlantic Ocean
- *Indian River Lagoon includes St. Lucie River
- *Historic flow started south of Orlando to the Everglades
- *Current flow: The historic flow was redirected through canals into the estuaries, the Caloosahatchee on the west and the St. Lucie on the east
- *Change of flow was made due to the State of Florida's selling off lands south of the lake to farmers who could grow crops in the rich soil
- *Define historic and flow
- *Compass

Common Core Standards:

RI-.7 Reading Anchor Standard 7 Multimedia
Use illustrations and details in a text to describe its key ideas

Notes:





WHAT RIVER FLOWS INTO LAKE OKEECHOBEE?

HOW ARE THE RIVERS DIFFERENT FROM THE CANALS?

WHY DO YOU THINK THE CANALS ARE DIFFERENT?

WHY DOES THE NEST HAVE ?? IN IT INSTEAD OF EGGS?

WHY DOES THE ALLIGATOR HAVE HIS TONGUE HANGING OUT OF HIS MOUTH?

Focus Points:

- *Original beautiful creeks and rivers were straightened into canals
- *Herbert Hoover Dike was built so the water would not flow south (white blocks at bottom of Lake Okeechobee)
- *Everglades Agricultural Area (EAA) prevents flow to Everglades
- *St. Lucie Inlet flows into ocean

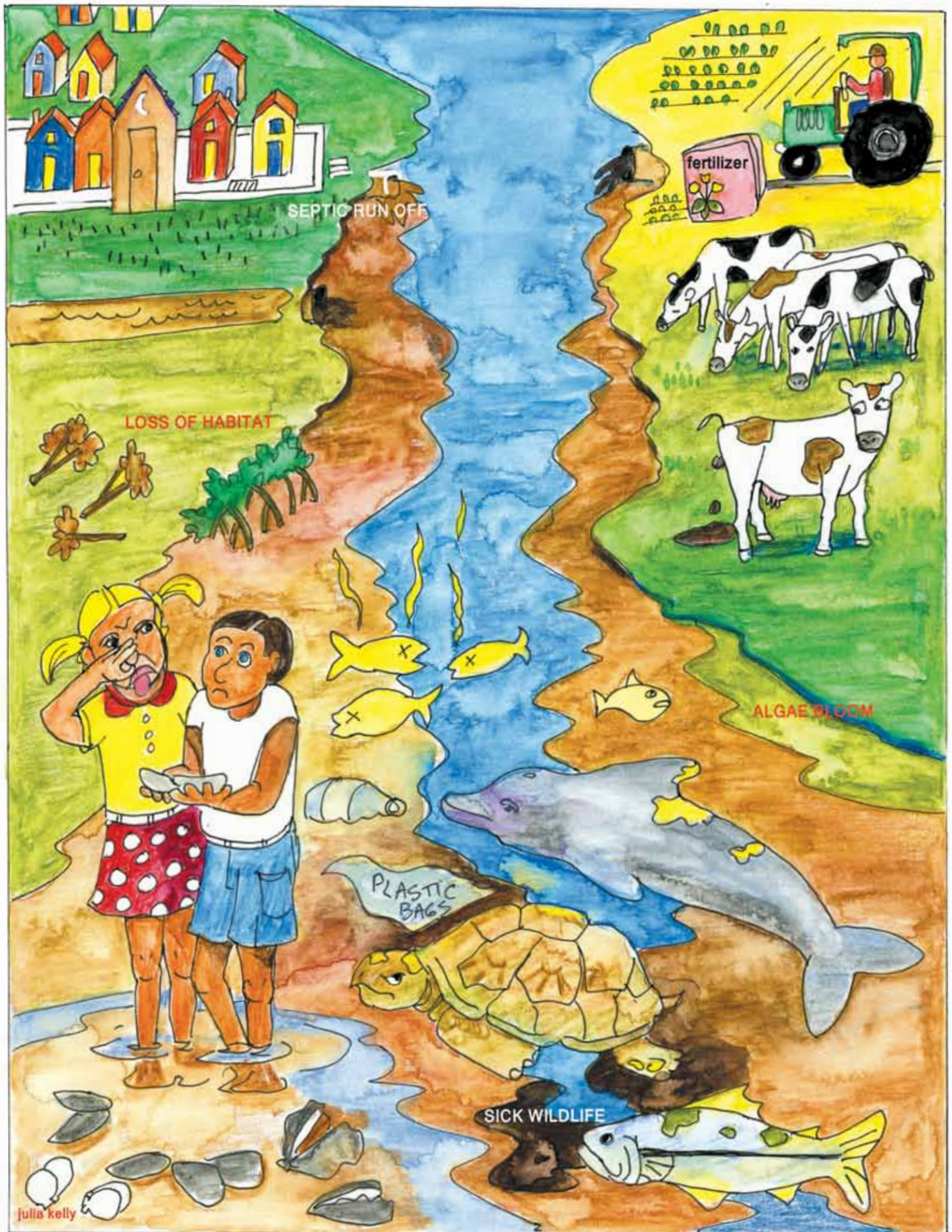
Common Core Standards:

RI_.5 Reading Anchor Standard 5 Structure

Know and use various text features to locate key facts or information in the text.
(captions, bold print, subheadings)

Notes:





**LOOK CAREFULLY AT THE GIRL IN THE ILLUSTRATION,
WHAT VISUAL CLUES DO YOU GET FROM HER PICTURE?**

WHY DOES SHE FEEL THIS WAY?

**WHAT IS CAUSING THE RIVER TO BE POLLUTED
FROM THE PICTURE?**

WHAT ARE THE EFFECTS FROM THE POLLUTION?

Focus Points:

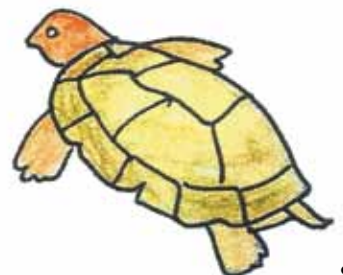
- *Pollutants-septic tanks, fertilizers, animal waste, trash, too much fresh water (low salinity)
- *Results- loss of habitat, sick wildlife, algae bloom

Common Core:

RI_.7 Reading Anchor Standard 7 Multimedia

Use illustrations and details in a text to describe its key ideas, explain how images contribute to and clarify text

Notes:



DISCHARGES FROM LAKE OKEECHOBEE ABOVE AND BELOW



**LOOK CAREFULLY AT THIS ILLUSTRATION,
WHAT IS THE ILLUSTRATOR TRYING TO SHOW?**

**HOW IS THE SURFACE OF THE RIVER DIFFERENT FROM
BELOW THE SURFACE?**

**A VENN DIAGRAM COULD BE USED TO COMPARE AND
CONTRAST DURING THIS LESSON.**

Focus Points:

- *Illustration shows a comparison from the surface of the river to the ground surface of the river
- *Surface of the river doesn't reflect the health of the river
- *Coral reefs, fish, and plants affected on the bottom can not be seen from the surface
- *When Lake Okeechobee's waters are being released through the locks it lasts weeks or even months; canals also release polluted water but it only last as long as it rains

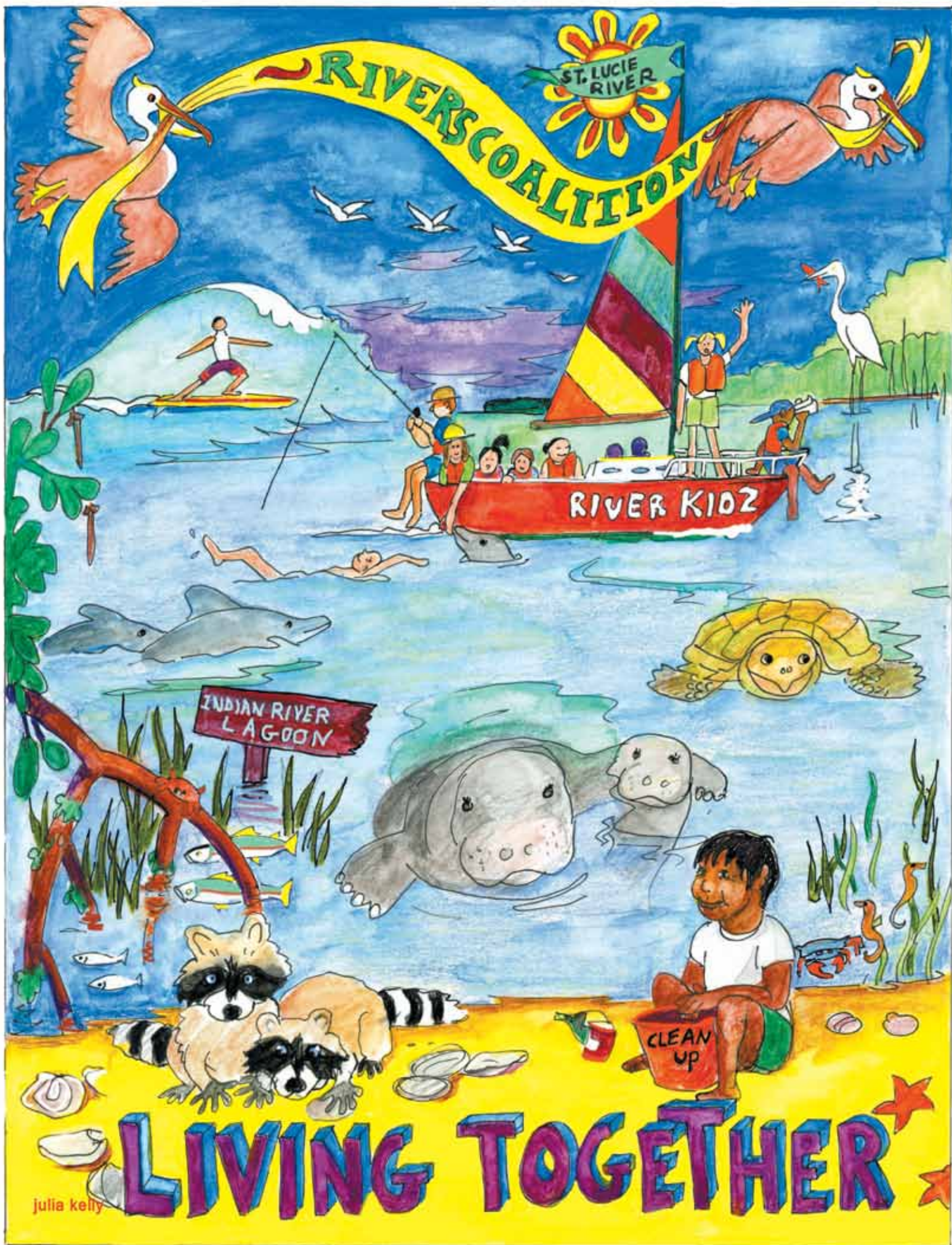
Common Core Standard:

RI_.9 Reading Anchor Standard 9 Multi-text

Identify basic similarities and differences between two text on the same topic, compare and contrast

Notes:





**NAME 3 ACTIVITIES THAT CAN BE ENJOYED IN
HEALTHY WATERWAYS:**

1. _____
2. _____
3. _____

**HOW HAVE THE FACES ON THE CHILDREN AND
ANIMALS CHANGED?**

WHY?

**IN YOUR OPINION, WHICH ANIMAL DO YOU THINK IS THE
HAPPIEST AND WHY?**

MY FAVORITE WATER ACTIVITY IS

BECAUSE

Focus Points:

- *Animals, plants, and people can live together and share their environment
- *Many activities use healthy waterways
- *Happy faces are a result of healthy rivers

Common Core Standard:

RI_.8 Reading Anchor Standard 8 Argument

Identify the reasons an author gives to support points in a text, describe how reasons supports specific points

Notes:





LOOK CLOSELY AT THIS PICTURE, WHY DID THE ILLUSTRATOR PUT A BANNER ON THE TOP THAT SAYS BRIGHTER FUTURE?

THINK ABOUT THE PREVIOUS ILLUSTRATION OF THE CANALS AND CURRENT WATER FLOW. HOW IS THIS PICTURE DIFFERENT?

WHO WILL CHANGE THE WATER FLOW BACK TO FLOWING SOUTH?

WHY DO THE ANIMALS LOOK HEALTHY ON THIS PAGE?

WHAT THINGS DID NOT CHANGE AND REMAINED THE SAME FROM THE PAST TO THE FUTURE?

Focus Points:

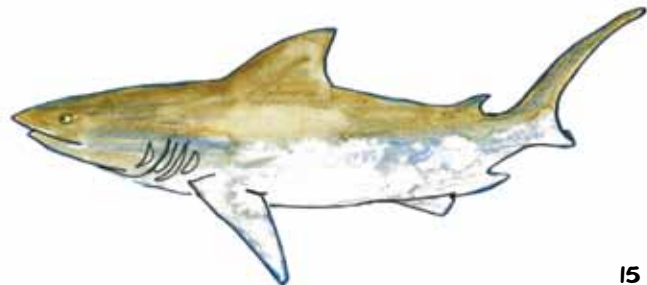
- *Natural estuaries have less water flowing when more water is flowing South to the Everglades, which is what nature intended
- *The Kissimmee River is restored back to original flow
- *These changes could create a brighter future for people, animals, and the river

Common Core Standard:

RI_.3 Reading Anchor Standard 3 Interaction

Describe the connection between two events, series or historical events, or ideas

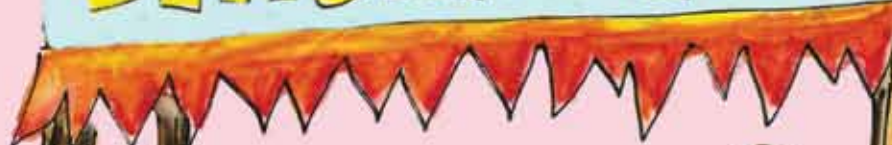
Notes:



Thanks 
River Kidz !! 



LEMONADE 10¢



SOUTHEASTERN PRINTING



julia kelly

THINK ABOUT SOMETHING THAT IS VERY IMPORTANT TO YOU. THINK ABOUT WHY IT IS VERY IMPORTANT TO YOU. IF YOU COULD USE YOUR VOICE TO CHANGE SOMETHING WHAT WOULD IT BE?

HOW CAN YOU GET ADULTS AND OTHER CHILDREN TO HEAR YOUR VOICE? WHAT CAN YOU DO TO MAKE A DIFFERENCE?

Focus Points:

- *Everyone can make a difference, age does not matter
- *River Kidz began with two 5th grade students selling lemonade to raise money and protect the river
- *We all have important voices so take a stand for changing the world any way you choose.
- *Southeastern Printing printed these books and has been a big supporter of River Kidz

Common Core Standard:

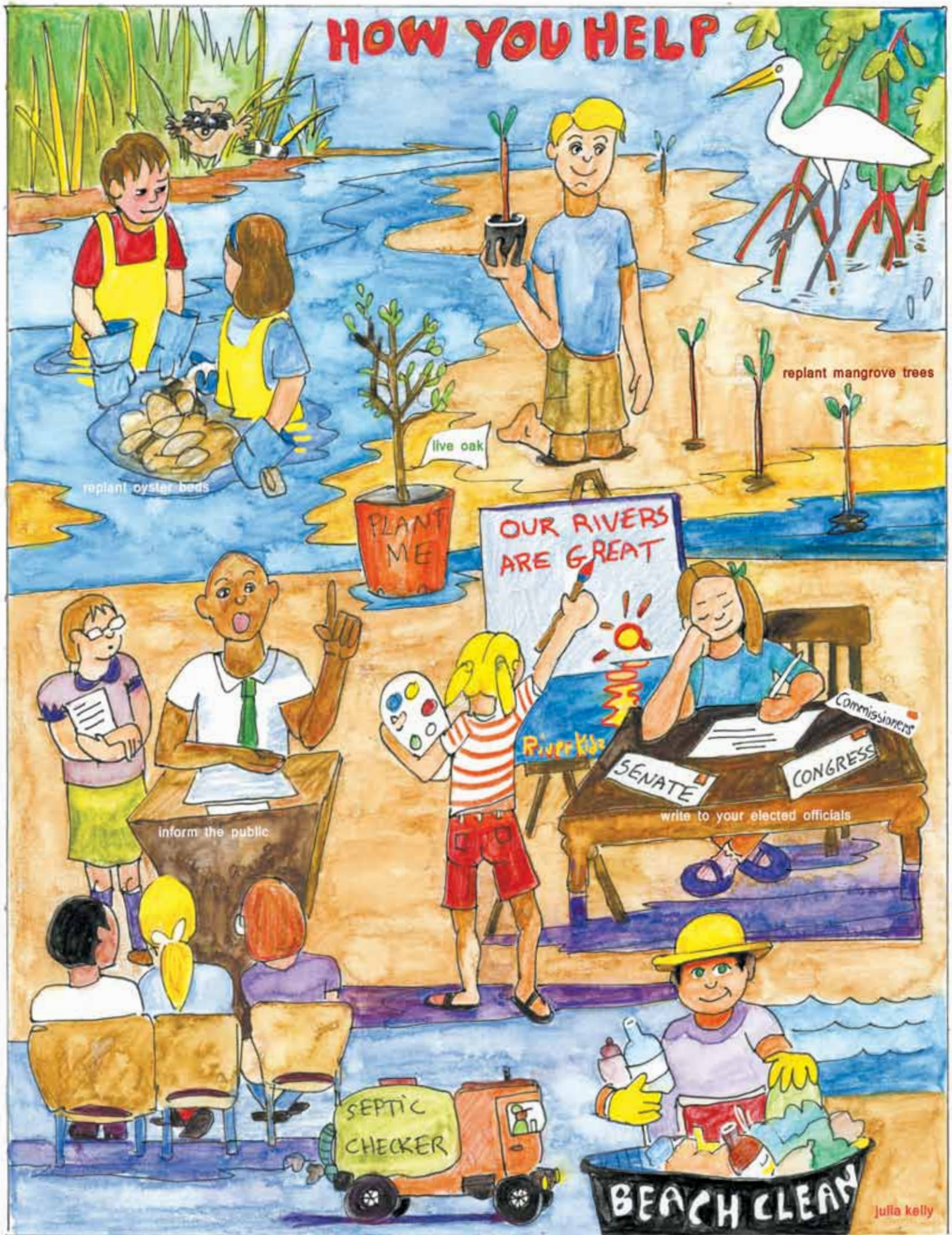
RI_.5 Reading Anchor Standard 5 Structure

Know and use various text features to locate key facts or information
(captions, labels, subheadings)

Notes:



HOW YOU HELP



**LOOK AT THE TOP OF THE PAGE, "HOW YOU HELP?"
WHAT DO YOU THINK THIS MEANS?**

LIST 5 THINGS YOU CAN DO TO PROTECT THE RIVER:

1.

2.

3.

4.

5.

**ONE OF THE BEST WAYS TO HELP THE RIVER IS TO TAKE
THIS BOOK HOME AND SHARE IT WITH YOUR PARENTS.
THIS BOOK WAS CREATED BECAUSE UNDERSTANDING THE
HISTORY, PROBLEMS AND CHANGES IN OUR RIVER WILL HELP
US TO COME UP WITH SOLUTIONS. PLEASE DISCUSS THIS
WITH EVERYONE WHO WILL LISTEN SO THAT TOGETHER WE
CAN SAVE OUR RIVER!**

Focus Points:

*Ways that we can help our river:

1. Oyster restoration
2. Plant shoreline vegetation to restore habitats
3. Make river art
4. Write elected officials
5. Speak out in public
6. Septic checks in our homes
7. Don't pollute
8. Participate in beach clean-ups
9. Spread the word and create awareness
10. Have a lemonade stand and give the money you raise to an organization that helps the river!

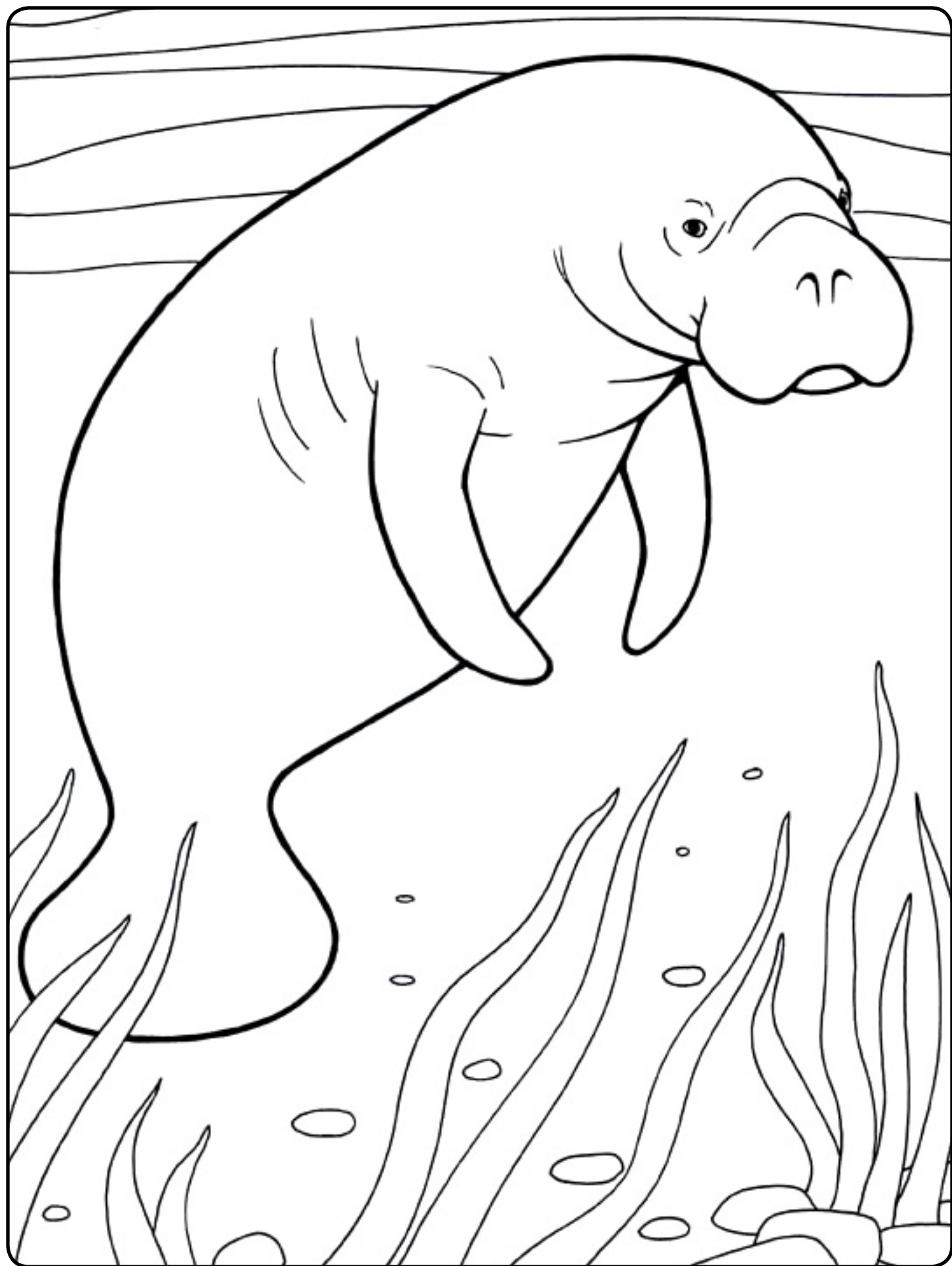
Common Core Standard:

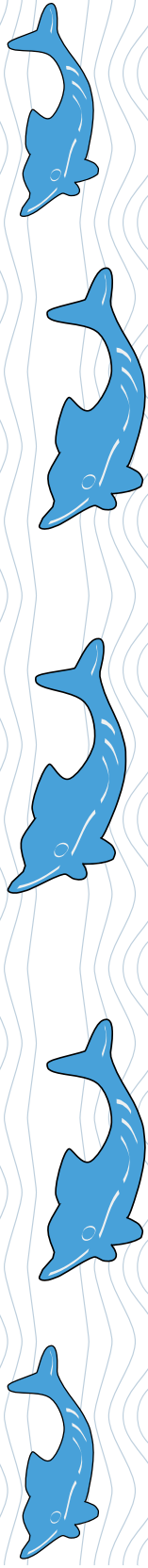
RI_.8 Reading Anchor Standard 8 Argument

Identify the reasons an author gives to support points in a text, describe how reasons support the specific points the author makes

Please encourage students to write a letter and have their voice be heard on the included paper. (Common Core Standard W_.1-Write an opinion piece in which they state an opinion, supply a reason and give closure). We also have included a certificate to demonstrate completion of this new knowledge and understanding of the importance of protecting our rivers.







CERTIFICATION OF COMPLETION

is hereby granted to

For Successfully Completing the



Educational Workbook

Date

Signature

Dear _____,

[illegible]

