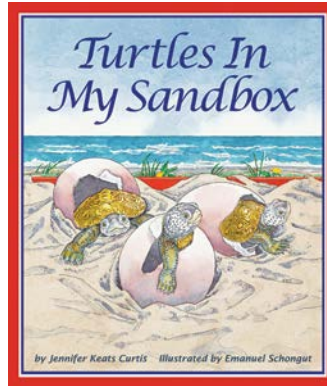


Teaching Activities

for



<u>Questions to Ask Before & after reading the book</u>	2
<ul style="list-style-type: none">• Questions to ask before reading the book• What do children already know? With charts• After reading the book – writing prompts & thinking it through• Re-read the book looking for more information• Comprehension questions• What do children already know activity conclusion	
<u>Language Arts</u>	7
<ul style="list-style-type: none">• Developing a word wall• Vocabulary game• Putting it all together• Suggested vocabulary list• Silly sentence structure activity• Sequencing sentence strips• Word search	
<u>Science</u>	15
<ul style="list-style-type: none">• Edible sorting & classifying activity• Sorting by attribute graph• Classifying animals• Turtle, tortoise or terrapin?• Adaptations• Science journal• Nature observation notebook• Venn diagram	
<u>Math</u>	23
<ul style="list-style-type: none">• Wetlands Institute's Terrapin Conservation Project statistics	
<u>Research & Geography</u>	24
<ul style="list-style-type: none">• Where are terrapins found?	
<u>Character</u>	25
<ul style="list-style-type: none">• Good citizenship—caring for the environment	
<u>Other</u>	26
<ul style="list-style-type: none">• <i>Turtles in My Sandbox</i> Bingo	

Teaching Activities are intended for use at home, in the classroom, and during story-times.

Copyright © 2007 by Arbordale Publishing, formerly Sylvan Dell Publishing

[Return to Top](#)

Questions to ask children before reading the book

- What do you think the book is about by looking at the cover? (or one or two of the inside illustrations) *Sometimes it is easy to tell from the cover, other times it is not.*
- What does the cover illustration show?
- Does the title tell you what the book is about?

What do children already know?

- Young children are naturally inquisitive and are sponges for information. The whole purpose of this activity is to help children verify the information they know (or think they know) and to get them thinking “beyond the box” about a particular subject.
- The children should write down their “concepts” (or adults for them if the children are not yet writing) on the provided chart found on the next page.
- Use the questions to get children thinking about what they already know. Feel free to add more questions or thoughts according to the child(ren) involved.

[Return to Top](#)

What do children already know—activity chart

Ask children to write down what they think they know before reading the book. If the information is verified while reading the book, check “yes.” If the information is wrong, mark “no” and cross it off. Write the correct information in another section, below. Make a note of how you verify the information.

<u>What do I think I know?</u>	<u>Yes</u>	<u>No</u>	<u>Verified</u>
What is a diamondback terrapin?			Text Illustration Info in FCM Other
Where do terrapins live?			Text Illustration Info in FCM Other
Where do they lay eggs?			Text Illustration Info in FCM Other
What type of animal are they (animal class)?			Text Illustration Info in FCM Other
How are terrapins similar to or different than box turtles or sea turtles?			Text Illustration Info in FCM Other
What are some problems or dangers that terrapins face?			Text Illustration Info in FCM Other

[Return to Top](#)

Use this chart for any other thoughts the children might have.

<u>What do I think I know?</u>	<u>Yes</u>	<u>No</u>	<u>Verified</u>
			Text Illustration Info in FCM Other
			Text Illustration Info in FCM Other
			Text Illustration Info in FCM Other
			Text Illustration Info in FCM Other
			Text Illustration Info in FCM Other
			Text Illustration Info in FCM Other
			Text Illustration Info in FCM Other
			Text Illustration Info in FCM Other
			Text Illustration Info in FCM Other

[Return to Top](#)

After reading the book—writing prompts & thinking it through

- Did the cover “tell” you what the book was about?
- If not, how does the illustration on the front relate to the story?
- Draw your own cover
- Can you think of another title for the book?
- Did the illustrator include anything in the pictures that were not in the story or are there things hidden in the art?
 - How many times do you see the cat?
 - What other animals can you find?
 - The illustrator hid something from [Christmas Eve Blizzard](#), which he also illustrated, in this book. Can you find it?

Re-read the book looking for more information

Go back and re-read the book studying each page carefully.

- What, if any, facts are mentioned in the text?
- What can be seen or inferred from the illustrations that is not or are not mentioned in the text?
- What, if anything, can be inferred from the text?
- Pause during second readings and ask the child(ren) if they remember what happens next.
- What would happen if a character did something different or if something different happened to the character? Would it/could it change the story?

Comprehension Questions

Why did the mother turtle lay the eggs where she did?

Where did she think she was laying the eggs?

What are some reasons that she might have had a hard time finding a place to lay the eggs?

Where did Maggie find the eggs?

What clue(s) did she see to let her know they were there?

What did she do to learn about terrapins?

How many eggs were there? How many hatched?

What did she do to take care of the terrapins?

How many did she put in each tank?

What did she feed them?

Why did she release them?

[Return to Top](#)

What do children already know activity conclusion

- Do the children have any more questions about diamondback terrapins? If so, write them down on the chart.
- Identify whether the information was verified and how.
- If the concept is correct, make a note of how the information was confirmed (illustration, in text, in fun fact notes)
- If the concept was not correct, what IS the correct information – with above confirmation notes as above.
- If the concept was neither confirmed nor denied, look the information up in a reliable source and note where it was confirmed.
- Wrap it all up by adding notes with new information that they learned either through the reading or the research while looking up something else.

[Return to Top](#)

Language Arts

Developing a vocabulary “word wall”

If using the book as a way to introduce a topic or subject, this is also a great way to introduce subject-related vocabulary words. If you don't have the time (or the inclination) to develop the word wall by playing the Vocabulary Game (below), we have provided a vocabulary list for you.

Vocabulary words for the “word wall” may be written on index cards, on a poster board, or on a chalk board. If writing on poster board or chalk board, you might want to sort into noun, verbs, etc. right away to save a step later. Leaving the words posted (even on a refrigerator at home) allows the children to see and think about them frequently.

Vocabulary game

This activity is designed to get children thinking of vocabulary words which will then be used as the beginning vocabulary list for a science lesson.

Select an illustration and give children a specific length of time (five minutes?) to write down all the words the children can think of about the particular subject. *If you do not have classroom sets of the book, it is helpful to project an illustration on a white board. Check Web site (www.ArbordalePublishing.com) for book “previews” that may be used for this purpose.*

Their word list should include anything and everything that comes to mind, including nouns, verbs and adjectives. At the end of the time period, have each child take turns reading a word from his/her list. If anyone else has the word, they do nothing. If however, they are the only one with the word, they should circle it. While reading the list, one person should write the word on a flashcard or large index card and post it on a bulletin board or wall.

At the end, the child with the most words circled “wins.” And you have a start to your science vocabulary list. *Note if children use an incorrect word, this is a good time to explain the proper word or the proper usage.*

Putting it all together

The following activities may be done all together or over a period of several days.

- Continue to add words to the vocabulary list as children think of them.
- Sort vocabulary words into nouns, verbs, adjectives, etc. and write what it is on the back of the card. When the cards are turned over, all you will see is “noun,” etc. *(These can then be used to create silly sentences, below)*
- Now sort the vocabulary words into more specific categories. For example, nouns can be divided into plants, animals, rocks, minerals, etc. They can be divided into living/non-living, or into habitat-related words.
- Have children create sentences using their vocabulary words. Each sentence could be written on a separate slip of paper.
- Have children (individually or in small groups) sort and put sentences into informative paragraphs or a story.
- Edit and re-write paragraphs into one informative paper or a story.

[Return to Top](#)

Turtles In My Sandbox

Glossary

Bank: Slant or slope of a hill

Bask: To be warmed by the sun

Beak: The turtle's hard, sharp "lip," which appears just under its nose

Brackish: Somewhat salty water. Bay water is not as salty as ocean or sea water, but saltier than fresh water

Bulkhead: A rock or wood wall that people build to protect beaches and sandy areas along the water's edge from being washed away by the Bay

Clutch: number of eggs laid at the same time

Endangered: In danger of extinction; dying out

Feet: Terrapins feet are webbed, clawed flippers used for swimming

Habitat: An animal's home

Hatchlings: Baby turtles

Headstart: Raising hatchlings in aquariums in schools and in homes so that they grow bigger and stronger and are more likely to survive when they are released

Nest protector: Wire cage placed over a turtle's nest of eggs to keep out other animals

Plastron: The turtle's bottom shell

Scutes: The plates on the bottom and the top of the terrapin's shell. Marginal scutes are the rings on the edge of the shell

Shoreline: Sandy area along the water's edge

Tag: Thin metal tag placed on the terrapins before they are released. The tags, which do not hurt the terrapins, help wildlife experts identify and track the animals as those that have been headstarted

Wildlife experts: Biologists, zoologists, and scientists who research, preserve, and conserve animals in the wild

[Return to Top](#)

Turtles In My Sandbox

Suggested vocabulary list

<u>nouns</u>	<u>verbs</u>	<u>adjectives</u>
bay	bask	black
beaks	bury	brackish
carapace	climb	edible
claws	dig	oblong
eggs	eat	pink
feet	find	sharp
footprints	lay	small
hatchlings	rest	warm
logs	tag	webbed
mother		
plastron		
rocks		
sandbox		
scutes		
shore		
tank		
terrapin		
turtle		

[Return to Top](#)

Turtles in my Sandbox
Sequence sentence strips

Preparation: Cut into sentence strips, laminate if desired, and place in a "center." Have children put the events in order. Children may work alone or in small groups. Cards are in order but should be mixed up when cut apart.

-----✂-----

Mamma terrapin crawled out of the bay, dug a nest, and laid her eggs.

-----✂-----

Maggie found the nest of eggs in her sandbox.

-----✂-----

Maggie and her mother researched and learned about terrapins.

-----✂-----

Maggie and her mother covered the nest with a nest protector to keep raccoons and other animals out.

-----✂-----

One hot September day, the terrapins hatched out of their shells.

-----✂-----

----- ✂ -----
**Maggie put the hatchlings in three aquariums.
She feed the terrapins and took care of them.
Every morning Maggie turned on the heat lamps.**

----- ✂ -----
The terrapins grew over the winter.

----- ✂ -----
**On the first day of summer, Maggie, her mom, and
the turtle lady released the terrapins into the bay.**

[Return to Top](#)

Turtles In My Sandbox

Word search

Find the hidden words. Even non-reading children can try to match letters to letters to find the words! Easy – words go up to down or left to right.

For older children, identify the coordinates of the first letter in each word (number, letter).

	A	B	C	D	E	F	G	H	I	J
1	D	O	G	B	O	A	L	H	I	X
2	I	V	A	U	E	H	O	T	R	N
3	A	T	E	R	R	A	P	I	N	B
4	M	U	N	Y	E	T	D	T	Y	A
5	A	R	E	S	P	C	L	A	W	S
6	Z	T	T	D	T	H	U	N	P	K
7	A	L	A	I	I	Q	U	K	A	V
8	L	E	G	G	L	O	W	D	C	O
9	S	C	U	T	E	I	C	E	W	N
10	O	T	M	O	M	N	B	T	E	A

___, ___ BASK
___, ___ HATCH
___, ___ CLAWS
___, ___ DIG

___, ___ TERRAPIN
___, ___ EGG
___, ___ TANK
___, ___ SCUTE

___, ___ TURTLE
___, ___ REPTILE
___, ___ BURY
___, ___ TAG

[Return to Top](#)



Turtle Word Search

Find the hidden words. Even non-reading children can try to match letters to letters to find the words! Easy – words go up to down or left to right.



For older children, identify the coordinates of the first letter in each word (number, letter).



	A	B	C	D	E	F	G	H	I	J	K
1	T	U	H	P	L	A	S	T	R	O	N
2	S	E	A	T	U	R	T	L	E	M	E
3	C	O	M	U	S	T	A	B	L	E	D
4	A	D	Q	R	Y	I	P		U	S	H
5	R	E	P	T	I	L	E	C	A	C	X
6	A	V	J	L	W	Z	E	B	R	U	S
7	P	S	H	E	L	L	H	I	P	T	K
8	A	E	T	O	R	T	O	I	S	E	Y
9	C	O	L	D	B	L	O	O	D	E	D
10	E	T	E	R	R	A	P	I	N	F	G

Sea turtle
carapace
Reptile

terrapin
plastron
cold blooded

turtle
scute

tortoise
shell

For use with
Carolina's Story & Turtle Summer (sea turtles)
Turtles in my Sandbox (terrapins)
Tudley Didn't Know (painted turtle)

[Return to Top](#)

Science

Edible sorting and classifying activity

Gather together a cup of edible “sorting items.” For example:

- As many different kinds of M&Ms as you can find
- Chocolate & peanut butter chips
- Hershey kisses
- Peanuts or other type of nuts

Ask the child to sort the items into groups. There is no right and wrong, only what makes sense to the child. When finished, ask the child:

What criteria or attribute (color, size, ingredient, etc.) did you use to sort the items?

- Are there some items that fit more than one group or don't fit any group?
- Is it easy to sort or were there some items that were a little confusing?

If more than one person did this, did everyone sort by the same criteria? To really extend the learning, graph the attributes used to sort the items. *(blank graph below)*

Sorting by attribute graph

Graph the attributes that children used to sort their items.

What was the most common attribute (size, shape, color, etc.) used?

10					
9					
8					
7					
6					
5					
4					
3					
2					
1					
Attribute:					

[Return to Top](#)

Classifying animals

Animals can be sorted too. What are some attributes you might use to sort animals?

- By habitat
- Do they have a backbone?
- Do they have arms or legs?
- How many legs do they have?
- Do they have stripes or patterns on their bodies?
- Do they walk, swim, jump, or fly?

Some things are very easy for scientists to sort or classify, other things are not so easy. The first question they will ask is whether the item is (or was) alive or not. Both plants and animals are living things.

If the item in question is an animal, like the animals in the story, scientists will then ask other questions:

- Does it have hair or fur, feathers, or dry skin or scales?
- Does it breathe oxygen from air through lungs or water through gills?
- Are the babies born alive or from eggs?
- Does the baby eat milk from its mother?
- Is it warm or cold-blooded?
- How many body parts does the animal have?

By answering these (and other) questions, scientists can sort or classify the animals into “classes” such as mammal, bird, reptile, fish, amphibian, or insect.

[Return to Top](#)

Turtles, Terrapins & Tortoises: Same or different?

All three are reptiles. That means:

- they have scaly skin
- are cold-blooded (warmed by the air or water around them)
- breathe oxygen from air
- usually lay soft, leathery eggs (some snakes give birth to live young)

Depending on where you live, the three names may be used differently. In Australia, only sea turtles are called “turtles” and all others are tortoises. In Great Britain a turtle refers only to a sea turtle and terrapin refers to those that live in freshwater.

So, if three different scientists (in Australia, Great Britain, and the US) are doing research on a specific type of turtle; how do they know which turtle they are talking about? This is why scientists use the scientific classification name for animals. These names are based on Latin and are used to refer to the same animal—no matter where it is in the world. All turtles, terrapins, and tortoises belong to the order called *Chelonia*. Because of this, it is correct to refer to terrapins or tortoises as turtles; but it is not correct to call a turtle a terrapin or tortoise!

The following definitions are based on what is generally used or accepted in most parts of the United States:

Tortoises:

- live only on land
- have short, stumpy legs
- are plant eaters
- dig burrows for a house

Terrapins:

- live in brackish water but will bask on logs or rocks in the sun
- have both webbed feet and claws so they can swim and crawl onto land.
- can pull their heads and feet into their shells for protection but they do not have a “hinge” like a box turtle.

Turtles:

- Includes them all, even tortoises and terrapins. If in doubt, call it a turtle.
- Includes animals that spend most of their time in the water: snapping turtles and sea turtles. These turtles have webbed feet or flippers to help them swim.

[Return to Top](#)

Adaptations

Adaptations help animals to live in their habitat: to get food and water, to protect themselves from predators, to survive weather, and even to help them make their homes.

- Physical Adaptations include body shape. (teeth, feet, body covering, hair, blubber, ability to move, climb, etc.)
- Camouflage: color of skin or pattern to blend into background.
- Mimicry: Pretending to be something else to fool predators (Katydid)
- Behavior: opossum plays dead, social groups
- Migration: the seasonal movement of animals from one location to another
- Hibernation: a long, deep sleep in which the animals breathing and heartbeat are lower than usual.

Using information in the book or other sources, figure out some terrapin adaptations.

- How does it move and what parts of its body does it use to move?
- How does it see?
- How does it hear?
- How does it get its food?
- What parts of its body does it use to gather the food?
- How does it eat its food?
- What parts of the body does it use to eat the food? (teeth are different for carnivores than herbivores...)
- How does it hide from predators or prey (so it can catch the prey)?
- How does it protect itself from predators?
- In what habitat does it live?
- What adaptations does the animal need to help it survive in that habitat? (heat, cold, land, water, underground, high altitude, et.)
- Where does the animal live and does it make a “house?”
- Does it live alone or with a group?
- How does it “communicate” with others of its kind?
- How does it sleep?
- When does it sleep?
- Is food readily available all year?
- How does it deal with seasonal changes (if applicable)?

[Return to Top](#)

Science journal

Have children draw a picture to define the vocabulary word or concept

turtle

carapace

plastron

[Return to Top](#)

scutes

marginal scutes

beak

[Return to Top](#)

Nature observation notebook

Animals are busy around you at different times of the day or year.

Do different animals show up in your backyard at different times of day? Go in your backyard (or school playground) at different times of the day (morning, noon, evening and night) and write down the animals you see. Are they the same or different? What changes there during the day that might cause different animals to come out at different times (such as light or temperature)?

Keep a journal with the following information

- Where are you?
- What time of day is it?
- What is the weather? (clear/rainy/cloudy or hot/cold)
- What animals do you see?
- What are they doing?

Those are the animals that you can see. Are there animals that you can hear but can't see?

- What type of sounds do you hear?
- What type of animal do you think makes the sound?
- Is it one animal or many animals?

Do you think you would see the same animal at the same place and time tomorrow?

Do you see any "signs" that animals have been there?

- Feathers or bones?
- Tracks or footprints?
- Scat (poop?)
- Scratches or claw marks on trees?
- Partially eaten plants (leaves, nuts, pinecones) or other animals?
- Signs of nests or homes?

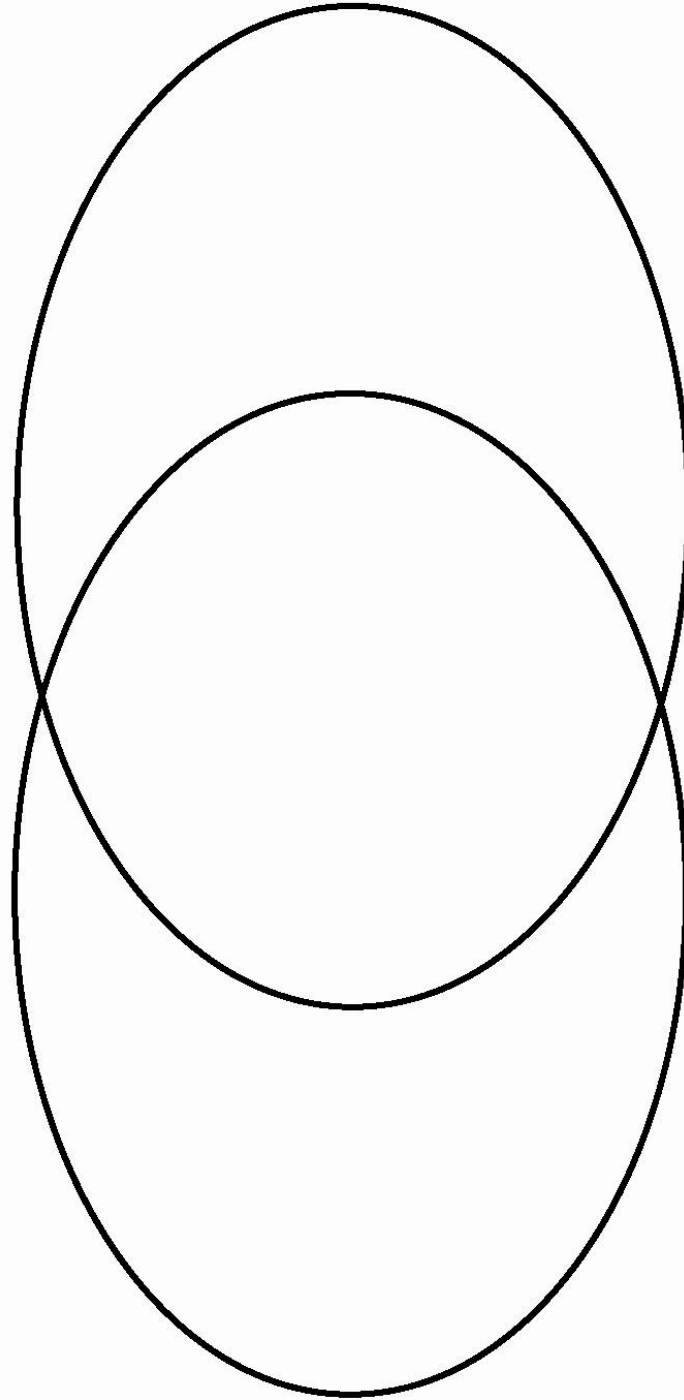
[Return to Top](#)

Reptiles versus Mammals

breathe air
hair or fur
warm-blooded

most are born alive
dry, scaly skin or shell
cold-blooded

most are born from eggs
eat milk from mother



Reptiles

Common

Mammals

Math

The [Wetlands Institute](#) partners with the Richard Stockton College of New Jersey to sponsor a Terrapin Conservation Project each summer. During nesting season each year, hundreds of female terrapins are hit by cars as they are attempting to find nesting areas. College students patrol the roads in an effort to help terrapins avoid being hit. However, if the females are hit and killed, the students will retrieve any eggs that they can and the eggs are incubated and the resulting hatchlings are head-started at turtle farms.

Here are some of their roadkill statistics for 2002: <http://www.terrapinconservation.org/>

May County	527
Atlantic County	<u>168</u>
Other counties not counted	

- How many terrapins do we know were killed during 2002?
- Can we assume that there were more killed in similar areas that were not counted?

Between 1989 and 2000 volunteers salvaged more than 6,000 eggs of which 3,500 hatched.

- What percentage of the salvaged eggs hatched?
- If 80% of those hatchlings survive to be released into the salt marshes, about how many were released?
- Do you think they all survived to become adults and reproduce? Why or why not?

In 2001, there were:

Adult females killed:	513
Head-started hatchlings released:	215

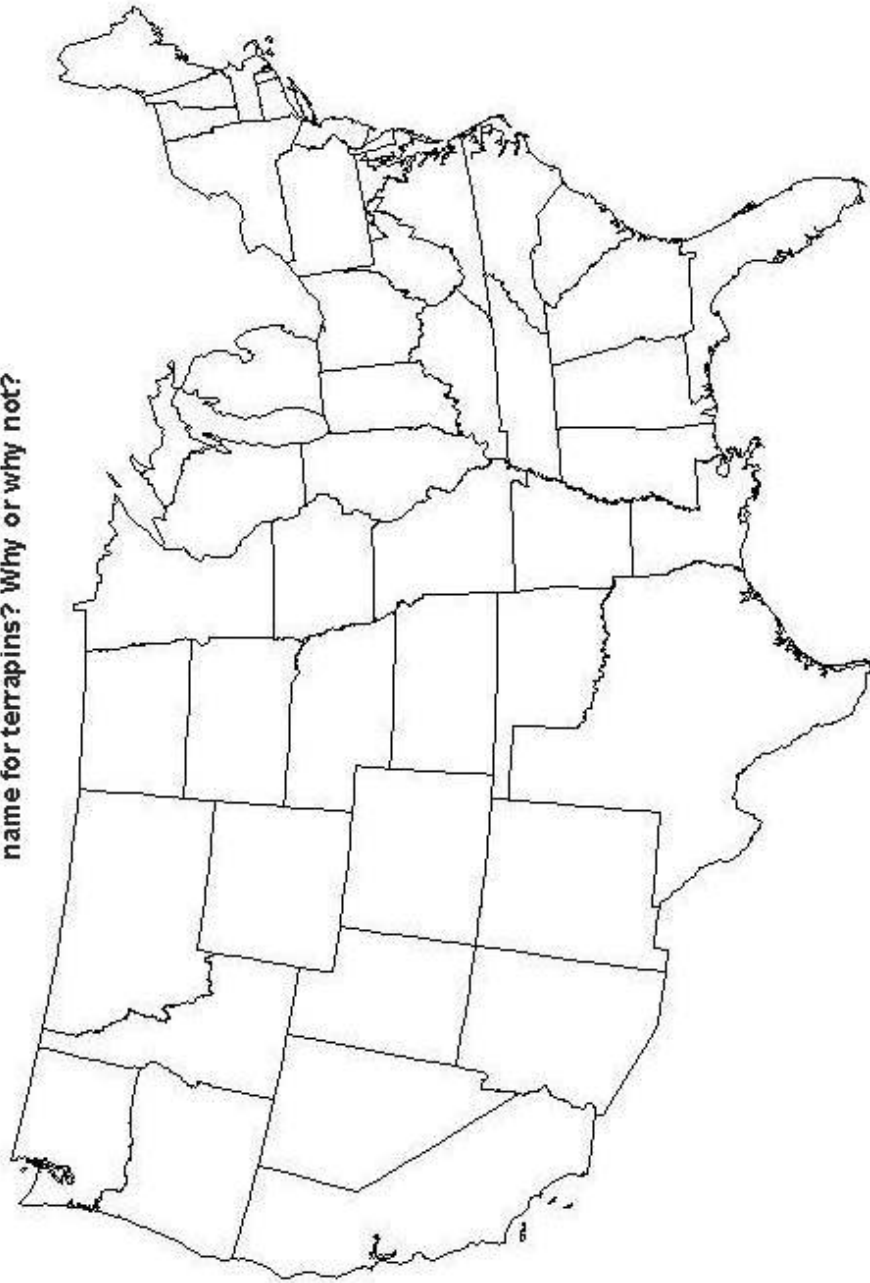
- During that one year, were there more females killed or hatchlings released?
- By how many?
- What does that tell you about dangers these animals face?

[Return to Top](#)

Turtles in my Sandbox

Terrapins are found in brackish water from Cape Cod, down the Atlantic coast, around the Florida peninsula, and the Gulf of Mexico. Color the area where you might see a terrapin.

The word terrapin comes from the Native Americans who lived around the Chesapeake Bay before the Europeans arrived. Would cultures from the Midwest or the Southwest have had a name for terrapins? Why or why not?



[Return to Top](#)

Character

According to Character Counts (<http://www.charactercounts.org/defsix.htm>), one of the six pillars of character is:

Citizenship

- Do your share to make your school and community a better place
- Cooperate with others
- Get involved in community affairs
- Stay informed; vote
- Be a good neighbor
- Obey laws and rules
- Respect authority
- Protect the environment

Do you think Maggie was being a good citizen by head-starting the terrapins?

How was Maggie protecting the environment?

What can you do to help terrapins from where you live?

Turtles in my Sandbox Bingo—next page.

[Return to Top](#)