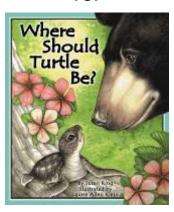
# **Teaching Activities**

for



<ul> <li>Questions to ask before reading the book</li> <li>What do children already know? With charts</li> <li>After reading the book – writing prompts &amp; thinking it through</li> <li>Re-read the book looking for more information</li> </ul>	
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Teaching Activities are intended for use at home, in the classroom, and during story-times. Copyright © 2008 by Arbordale Publishing, formerly Sylvan Dell Publishing

## 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?
- What do you notice about the young turtle?

## 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.

## 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, they check "yes." If the information is wrong, they mark "no" and cross it off, then write the correct information. Have the children note how the information was verified.

What do I think I know?	<u>Yes</u>	No	<u>Verified</u>
What are some different types of turtles?			Text Illustration Info in FCM Other
In what habitat do those turtles live?			Text Illustration Info in FCM Other
What do some of those turtles eat?			Text Illustration Info in FCM Other
What are some of the difference in the turtle body parts that help a turtle live in its own habitat?			Text Illustration Info in FCM Other

What do I think I know?	Yes	No	<u>Verified</u>
What type of animal is a turtle (what class)?	<b>_</b>		Text Illustration Info in FCM Other
Where do turtles get their oxygen: from water through gills or from the air with lungs?			Text Illustration Info in FCM Other
How do turtles protect themselves from predators?			Text Illustration Info in FCM Other
Do all turtles protect themselves the same way?			Text Illustration Info in FCM Other
Are turtles born alive or do they hatch from eggs?			Text Illustration Info in FCM Other
How do sea turtles know how to find the ocean?			Text Illustration Info in FCM Other
Why do some turtles like to sit in the sun on rocks or logs?			Text Illustration Info in FCM Other
Do turtles have teeth?			Text Illustration Info in FCM Other

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

What do I think I know?	Yes	No	Verified
WHAT GO I THIRK I KNOW:	163	140	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

#### 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.
- Write a song.
- Can you think of another title for the book?
- Do you think everything in the story could be true? Do animals really talk to each other or have human traits?
- Could the story have been told without the animals "talking" to each other?
   How?
- Write a different ending to the story

## Re-read the book looking for more information

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

- What facts are mentioned in 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**

- What was the turtle doing at the very beginning of the story?
- Why did the turtle go the wrong way?
- What could people have done to have helped the turtle go in the right direction?
- Why didn't the turtle think he was a box turtle?
- Why didn't the turtle think he was a painted turtle?
- Why didn't the turtle think he was a diamondback terrapin?
- Where did the turtle really belong?

## Fun things to look for

- What are some of the other animals that the illustrator put in the art?
- How many other sea turtles crawled to the ocean, going the right way?

## What do children already know—activity conclusion

- Do the children have any more questions about turtles? 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, or the "For Creative Minds" section)
- If the concept was not correct, what IS the correct information with 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 the children learned either through the reading or the research while looking up something else.

## Thinking it through...

Now that you have read this story, how will your thinking change next time you see a turtle in real life?

If you were to find one of these turtles, would you keep it as a pet?

- sea turtle
- box turtle
- painted turtle
- diamondback terrapin

Do you think it's a good idea to keep any wild turtle as a pet? Why or why not?

#### 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 nouns, 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 they 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* (<a href="www.ArbordalePublishing.com">www.ArbordalePublishing.com</a>) for book "previews" that may be used for this purpose.

The children's 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, the reader does nothing. If however, the reader is the only one with the word, he/she 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 a child uses 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 they are
  on the backs of the cards. 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.



<u>nouns</u>	<u>habitats</u>	<u>verbs</u>	adjectives
beach	deserts	bask	bright
beaks	grasslands	breathe	high
beetle	ocean	crawl	rounded
black bear	salt marshes	eat	warm
box turtle	wetlands	hatch	webbed
carapace	woods	hibernate	
claws		lay	
crab		migrate	
diamondback terrapin		swim	
eggs			
feet			
fish			
flippers			
frog			
hatchlings			
instinct			
light			
moon			
painted turtle			
plastron			
reptile			
sand			
sea turtle			
stars			
tracks			



## Silly sentence structure activity

This is a fun activity that develops both an understanding of sentence structure and the science subject. Use words from the "word wall" to fill in the blanks. After completing silly sentences for fun, have children try to fill in the proper words by looking for the information in the book.

AII	s are		s and
		noun	
verb	_ air.		
verb			
Turtles	from	s. O	nce thev
verb	noun		
hatch, sea turtles	acro	oss the $_{}$	
	verb	r	oun
to the	•		
noun			
D'			
Diamondback terr	apıns live in	habitat	es and
nainted turtles live	around	habitat	Roth
painted turtles live		habitat	Don
species	in the sun to	aet	_
verb		301	adjecti ve
Box turtles have _	•		shells so they
	adjective	adjecti ve	,
can pull their head	ds & feet in for pro	otection	S
			noun
cannot pull their h	eads or		to their snells.
		noun	
	4 4   -   - 1 - 4   1 4	- h	_
Turtles don't have	teeth, but they do	o nave	S.
			Houri

## Where Should Turtle Be?

## 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.
A turtle hatched out of his egg.
He saw a bright light and crawled the wrong way
The turtle was in the woods.
A bear said he must be a box turtle.

×××
The turtle was by a pond.
A frog said he must be a painted turtle.
The turtle was in the marsh.
A beetle said he must be a terrapin.
The beetle tickled the turtle's nose.

×
The turtle landed by a crab.
The crab told him that's where he should be.
The turtle had landed on the beach.
He swam into the ocean – his home.



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).

	Α	В	С	D	Е	F	G	Н	- 1	J
1	D	0	S	Т	0	Р	В	Е	Α	D
2	F	R	Е	G	G	S	Е	Α	Υ	0
3	R	I	Α	Т	С	Н	Α	Р	Е	G
4	U	0	Т	M	Α	С	R	Α	W	L
5	I	C	J	Α	Т	С	Ι		0	I
6	Т	Ш	R	R	Α	Р		Z	R	G
7	W	Α	Т	S	Т	Α	R	Т	M	Н
8	Е	Z	L	Ι	0	М	Ш	Ш	S	Т
9	R	Z	Ш	K	Р	0	Z	D	_	S
10	В	Е	Α	C	Ι	N	0	В	0	Χ

## Use capital letters

, SEATURTLE	, BOX, PAINTED
, TERRAPIN	, POND, MARSH
, HATCH	, EGGS, CRAWL
, WORMS	, FRUIT, BEAR
, OCEAN	, LIGHTS, STAR
, HOME	, BEACH, SEA

#### **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).







	Α	В	С	D	Е	F	G	Н	- 1	J	K
1	Т	U	Н	Р	L	Α	S	Т	R	0	Ν
2	S	Е	Α	Т	U	R	Т	L	Ε	М	Е
3	С	0	M	U	S	Т	Α	В	L	Ε	D
4	Α	D	Q	R	Υ		Р		U	S	Н
5	R	Е	Р	Т	1	L	Е	С	Α	С	Χ
6	Α	V	J	L	W	Ζ	Е	В	R	U	S
7	Р	S	Н	Е	L	L	Η	I	Р	Т	K
8	Α	Е	Т	0	R	Т	0	I	S	Ε	Υ
9	С	0	L	D	В	L	0	0	D	Е	D
10	F	Т	F	R	R	Α	Р		N	F	G

SEA TURTLE CARAPACE REPTILE TERRAPIN PLASTRON COLD BLOODED TURTLE SCUTE TORTOISE SHELL

Carolina's Story & Turtle Summer Turtles in my Sandbox Tudley Didn't Know Where Should Turtle Be? (sea turtles)
(terrapins)
(painted turtle)
(all of the above plus box turtles)



Write or tell a story about a time when you felt lost.

How did you get lost? How did you feel? How did you find your way back again?

Write about how you think the turtle felt when he was lost.

Write about how the other animals tried to help him.

The turtle went the wrong way because of the bright light. What do you think people could do to help sea turtles find the beach?

Of the four places the turtle went (the woods, the pond, the marsh and the ocean), where would you want to live as a turtle and why?

## Science Adaptations: Physical and Behavioral

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. The following is not a complete list by any means, but should help

- Physical Adaptations:
  - o body parts.
    - teeth depend on type of food it eats
    - feet, flippers, fins ability to move
    - placement of eyes
    - how does it get oxygen (gills, lungs, osmosis)
  - body covering & insulation
    - hair
    - feathers
    - fur
    - scales
    - blubber
  - Camouflage:
    - color of skin or pattern to blend into background.
    - mimicry: pretending to be something else to fool predators
- Behaviors
  - instinct: behaviors or traits that the animals are born with
  - learned behavior: traits that animals learn to improve their chances of survival or to make their life easier
  - o social groups versus solitary living
  - o communication with other animals
  - o defense/camouflage
  - o reaction to cycles (day/night, seasons, tides, etc)
  - migration: the seasonal movement of animals from one location to another
  - hibernation: a long, deep sleep in which the animals breathing and heartbeat are slower than usual.

Try to answer the adaptation questions for each animal on the following pages.



## Sea Turtle

Have you ever seen one of these	animals in real life?		yes no
If so, where did you see it?			
What are the babies called?			
How are the animals born?	_hatched from eggs		born alive
How many brothers and sisters m	ight be born at the sam	e time?	
How big is the baby (length, heigh	nt, weight, etc.) when bo	orn?	
Who raises the young:bo	oth parentsmothe	ronly	father only
neither parent – the baby s	survives on pure instinct		
Who prepares the nest/den/burrov	w and how (if applicable	e)?	
Some animals are only born at sp availability). This baby is born:  months of	anytime of th	e year or	usually in the
To what animal class does it below	ng? circle the answer:		
Vertebrate: fish mammal bird reptile amphibian	arthropod (insects, of sponges) flatworms segmented worm echinoderms		ns & arachnids) mollusk roundworms cnidarian
In what type of ecosystem does the	nis animal live?		
How does it move and what parts	of its body does it use	to move?	

What are some of the adaptations that were discussed in the story?
How does it see?
What does it eat?
How does it get its food?
What body part helps protect it from predators?
Does it live alone or with a group?
How does the animal deal with seasonal changes?



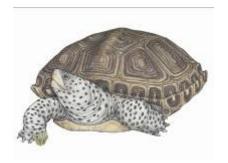
## **Box Turtle**

Have you ever seen one of these animals in real life? yes no					
If so, where did you s	If so, where did you see it?				
To what animal class	does it belong?	circle the answer	:		
Vertek fish mamm bird reptile amphik	nal	Invarthropod (insects sponges flatworms segmented worm echinoderms		ns & ara mollusk roundwo cnidaria	orms
In what type of habita	it and ecosyster	n does this anima	live?		
How does it move and what parts of its body does it use to move?					
What does it eat?  How does it get its food?					
How does it protect itself from predators?					



### **Painted Turtle**

Have you ever seen one of these animals in real life? yes no					
If so, where did you see it?					
To what animal cla	ass does it belong?	? circle the answ	er:		
fish ma biro rep	mmal	arthropod (insersponges flatworms segmented wor echinoderms		ns & arachnid mollusk roundworms cnidarian	s)
In what type of ha	bitat does this anin	nal live?			
How does it move and what parts of its body does it use to move?					
What does it eat?  How does it get its food?					
How does it protect itself from predators?					



## Diamondback Terrapin

Have you ever seen one of these animals in real life? yes no					
If so, where did ye	If so, where did you see it?				
To what animal cl	lass does it belong?	circle the answer:			
fisl ma bir rep am	ammal d otile nphibian	arthropod (insects, of sponges) flatworms segmented worm echinoderms	mollus roundv cnidari	k vorms an	
	·				
Does this turtle liv	e in your state?	yes	_no	I don't know	
How does it move and what parts of its body does it use to move?					
What are some of the adaptations that were discussed in the story?					
What does it eat?					
How does it get its food?					
How does it protect itself from predators?					

#### **Turtle 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. Turtles live all over the world in a wide variety of habitats; in the ocean, in or around ponds and water, or on land.

All turtles have shells that are part of their bodies. Turtles' shells grow with them, like our bones grow with us. A turtle can never leave its shell. The top of the shell is called a *carapace* and the bottom is called *plastron*. The carapace is covered with covered with "scales" or *scutes*.

All turtle shells are not all the same - A box turtle can completely pulls its head and legs into its shell. A hinge on the plastron completely closes. The shape of the shell is deep, like a helmet. Most other turtles (painted, terrapins, etc.) can pull their heads and legs into their shells but the shells don't completely close. Some turtles have soft, leathery shells for swimming. Snapping turtles have very small plastrons, making their shells lighter for swimming. They are better protected from the top than they are from the bottom.

Sea turtles have big, flat shells and cannot pull their head or flippers into their shells at all. The fat shape helps it to swim quickly through the water.

**The legs are different too -** Turtles that can swim and crawl onto land have webbed feet with claws. The webs help push through the water, but the claws help them on land.

- Tortoises have stumpy feet to help walk on different types of land.
- Sea turtles have flippers for swimming through the water.

**Beaks -** Turtles don't have mouths like we do, they have beaks. If they eat meat, their beaks have hooks that help them tear meat apart. The beaks are VERY strong and can break through other animals' shells. Turtles that eat plants have wider, flatter beaks.

**Turtles are reptiles -** Reptiles breathe air, have dry, scaly or leathery skin or shells, most are born from eggs (some snakes give live birth), and are cold-blooded (they get warmth from their environment).

Because they are cold-blooded, turtles like to bask (or lay out) in the sun. Sea turtles can't bask but they do swim to the surface to breathe.

Turtles have to protect themselves from cold weather. Sea turtles will migrate to warmer water. Other water turtles, like painted turtles or terrapins, will bury themselves in the mud in the bottom of the pond or bay for the winter. They continue to absorb oxygen through their skin.



**Turtles lay eggs.** The female turtle will dig a nest to lay her eggs. Even sea turtles crawl onto the beach to lay her eggs. Once they lay their eggs, they never see or know the hatchlings.

#### **SEA TURTLES IN DANGER!**

**Endangered**: A plant or animal that is in danger of becoming extinct.

**Extinct**: No longer found anywhere on Earth; completely disappeared.

Threatened: A plant or animal that is rare or may become endangered in the near

future.

**Sustainable:** able to sustain a population

#### Causes of plants and animals in danger:

- Changing habitat
  - o habitat destruction due to development, roads, agriculture, etc.
  - o loss of nesting areas
- Over fishing or hunting
  - Advanced technology allows fishermen to see where the fish are, increasing their catch—sometimes beyond what is sustainable
  - o Some animals were hunted on purpose, due to fear such as wolves
- Pollution
  - o including fertilizer and chemicals
  - o run-off from construction and development
  - animals may eat garbage "thinking" that it is food (i.e. plastic bags being mistaken for jellyfish)
  - o animals get trapped in garbage
- Missing link in the food chain due to another extinction

Sea turtles are endangered. Looking at the information above, what do you think some of the reasons might be?



## Why does the turtle cross the road and how can you help?

During the spring and early summer, you *may* notice turtles crossing roads. This is the time of year that turtles lay their eggs and you may be seeing females trying to get to a particular nesting area. **If safe to do so (and only if safe to do so)**, stop the car, have an adult pick up the turtle, and put her on the other side of the road (where she is heading).

If you are by a nesting beach for sea turtles, please keep all outside lights off and shades down at night for inside lights. Just like this story, sea turtles use their instinct to head towards the brightest light to get them to the ocean. In nature, this would be the moon or stars reflecting off the ocean. House lights can cause sea turtles to head away from the ocean – towards the roads where they are in danger of being killed by cars. Actually, you should keep lights out for turtles all summer long and into the early fall so that the hatchlings can find their way by instinct to the water too. Sea turtles dig their nests in the sandy beach so hopefully you should not see a full grown adult sea turtle on a road, but it is possible. A 300 lbs. sea turtle once followed bright lights into a South Carolina gas station! If you do see a sea turtle in the road, you must first ensure your safety, try to stop traffic to protect the sea turtle, and call the local police or Department of Natural Resources so they can help the turtle. Do not touch or try to move the sea turtle yourself.

Like sea turtles, diamondback terrapins leave the safety of their watery home to lay their eggs. Unlike sea turtles, they may frequently cross roads to find their instinctual nesting area. Hundreds of diamondback terrapins are hit by cars and killed each year as they are simply trying to find a safe nesting area. In fact, so many terrapin are killed on roads in some sections of New Jersey, Delaware, and Maryland that volunteers walk the roads to help terrapins get across safely. If they find a turtle that has already been hit, they are trained to remove the eggs which are then taken to special places (Philadelphia Zoo and the Wetlands Institute/Richard Stockton College) for hatching and eventual release. You should not try to do this without proper training,

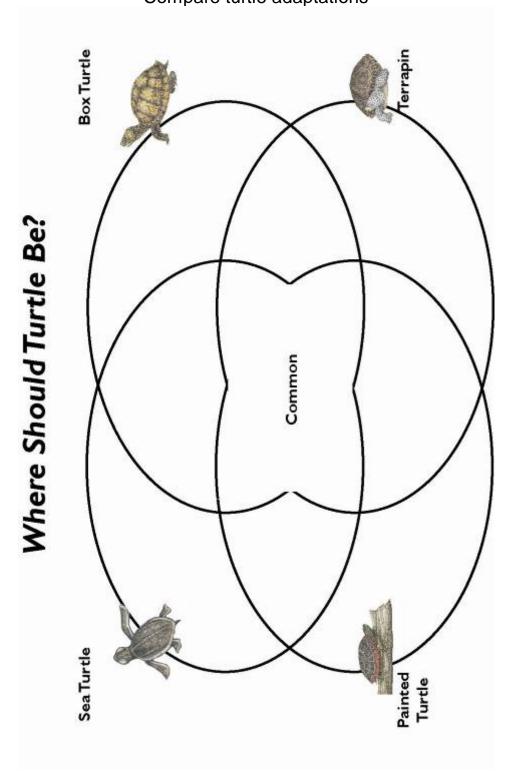
## Science journal

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

reptile	
carapace	
olastron	

beak			
flippers			
hatch			

Math
Venn diagram
Compare turtle adaptations



## Measuring (comparing and contrasting) Full grown turtles

loggerhead sea turtle	3-3 ½ feet	up to 350 lbs.
box turtle	4-8 inches	up to @ 1 lbs.
painted turtle	4-10 inches	up to @ 1 lbs.
diamondback terrapin	4-9 inches	up to @ 1.5 lbs.
	adult shell length	adult weight

Female turtles are usually larger than and weigh more than the males. The low end of the range is adult males and the high end of the range is adult females.

Using the information in the chart above, answer the following questions:

- Which male turtle species (3) have the same approximate shell size?
- Of those three turtle species, which one has the largest females?
- Of all the turtles listed above, which is the largest?
- Of all the turtles listed above, which is the heaviest?
- Of all the turtles listed above, which is the second heaviest?

Animals come in all shapes and sizes. Some animals are so small, they can only be seen with a microscope. Other animals (blue whales) are so big that they are the size of a school bus when they are born!

Comparing and contrasting by size and weight

It is easy to say that an adult loggerhead sea turtle is  $3 \frac{1}{2}$  feet, but what does that really mean? What standard measuring tool would you use to measure something in:

- Inches or centimeters
- Feet or meters
- Pounds or kilograms

How big is that 3 ½ foot loggerhead?

- Using the right measuring tool (yard stick or measuring tape) and chalk, mark off how big 3 ½ feet is on the playground, sidewalk, or driveway.
- If you were to lie down on or next to the line, would you be bigger than or smaller than the sea turtle?

## Geography



Range of Eastern Box Turtle Map from <u>Davidson College</u>



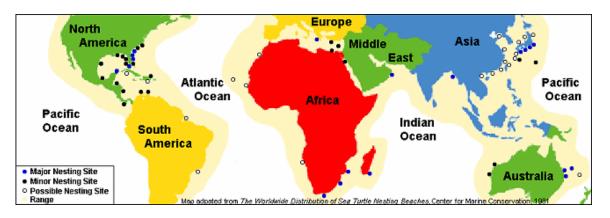
Range of Western Box Turtle Map from <u>Davidson College</u>



Painted Turtle Range & Distribution
Map from Western Connecticut State University



Map of Diamondback terrapins' range and distribution: Color the coastal area from the Gulf side of Texas, around the Gulf and Florida, up the Atlantic Coast to Cape Cod



Map of loggerhead sea turtle range and distribution with nesting sites Map from <u>Caribbean Conservation Corporation</u>

Geography questions based on above maps:

#### Four turtle species:

- box turtles (eastern & western)
- painted turtles
- diamondback terrapins
- loggerhead sea turtles

Which of the four types of turtles, if any, would you find in the state where you live (including ocean, if applicable)?

Which of the four turtles might you find in an inland forest or the mountains?

Why wouldn't you see a sea turtle in Kansas?

Which turtle might be seen off the coast of Africa?

Which turtle might be seen in Washington state?

Name some states where you might see all four of the different types of sea turtles (including the ocean off the coast of the state).

#### Character

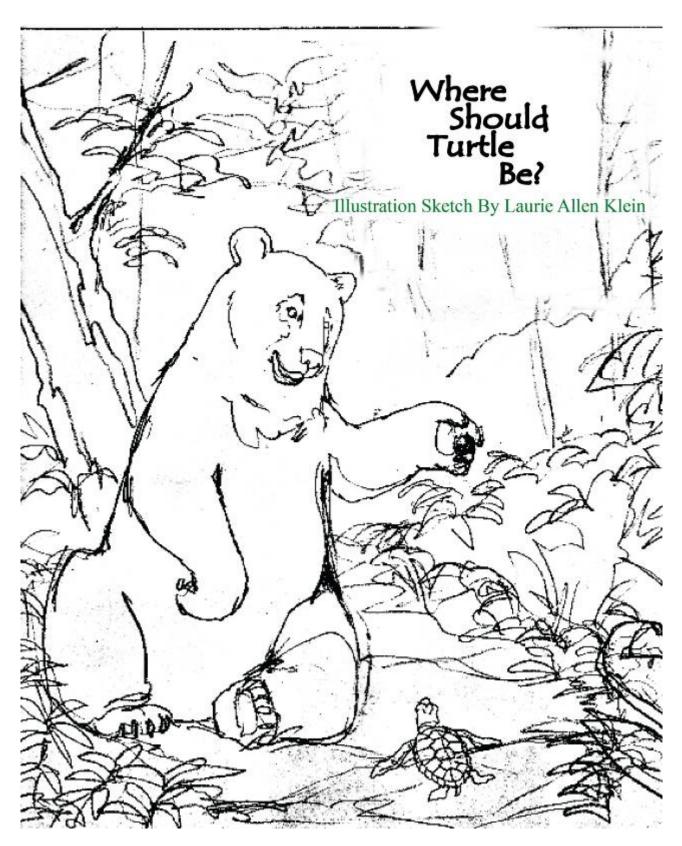
#### Persevere: keep on trying!

When the little turtle turned the wrong way and got lost, he could have just given up. What do you think would have happened to him if he had stayed in the woods?

#### Be a friend to have a friend.

Each of the other animals in the story tried to help the little turtle to figure out who he was and where he belonged.

- Have you ever tried to help a friend? How? Did it help them?
- Has anyone ever tried to help you? How did that make you feel?
- Why do you think it's important to help other people?



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