



WaterLife:
Where Rivers Meet the Sea





Valerie finds a new friend, Oscar, while she is bicycling.

To her surprise, Oscar is a talking otter and he leads the way to his estuary. Valerie learns that Oscar's home is dying and she can help restore the estuary.

What challenges will she face? How will she get back home? What shadows are watching her progress?

At the Hospital



Mom: Stop fussing Val. I'll be fine.

Doctor: You will be OK, but we'll keep you here tonight for observation.

Mom: Thank you, Doctor. Val, you go on home. I'll be better in no time, you'll see.



Leaving the Hospital

Valerie decides to take her mom's advice and ride home.



However, troubled as she is, she does not notice the otter lying on the path.



Caught by surprise, Val swerves to avoid the critter and crashes her bike.



The stunned Valerie collects herself, but the otter is still just lying there.



The otter finally comes to, and, much to Valerie's surprise, leaps for her backpack and starts rummaging through it. To her even greater surprise, the otter starts to talk!

Oscar (the Otter): There's nothing to eat in here!



The disappointed otter found Valerie's FIELD GUIDE.





Val: You can talk?

Oscar: My name is Oscar.

Val: Valerie.



Oscar: I haven't eaten since I left home.

Val: Left home? Why?

Oscar: Our home is dying. There is no food, and almost no life left at all. I need to find the Oracle. She is supposed to be very wise; maybe she can help heal our estuary.

Val: What's an estuary?

Oscar: An estuary is where rivers meet the sea. The freshwater from the rivers mixes with saltwater from the ocean.

Val: What happened to it?

Oscar:
Pollution.
Trash.
Like this.



Oscar:

Some plants are dying and no longer hold the earth, so the water has gotten dirty.

As plants rot, they also use up the oxygen the fish need.



The decay is spreading through the estuary...now even the ocean is getting dirty.

Val makes up her mind to help the poor otter, and she joins Oscar on his journey.

Oscar: Come on, we have to find the Oracle!



Val: "So where is the Oracle?"

Oscar: "She's whereEVER you need her to be."



As they walk, the bike path to Valerie's house fades from her mind.

Eventually, Valerie's new home town seems to fall apart around her, replaced by the even stranger world of the Oracle's Estuary.



She finds herself before the very Oracle for whom they were looking.

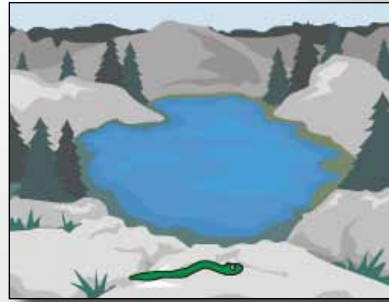


Oscar: We want to know how to save my home.

Oracle: Many have sought to “learn” about this hallowed ground, but for all their education, they have all left it further desecrated by ignorance or inaction. How do I know you are different? What kind of estuary do you come from, otter?

Val: I can look it up in my field guide. Oscar, let’s take a look around and figure it out.

Question 1: Which is an Estuary?



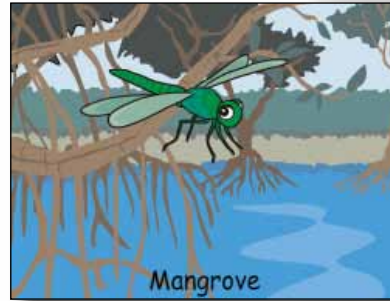
Answer: An estuary is where the river meets the sea. As the tide goes in and out, the river’s freshwater mixes with the sea’s saltwater.

Question 2: Why are estuaries important? (Choose all that apply). (wildlife nursery, absorb floods, filter pollution, recreation)



Answer: An estuary provides ALL these important things: Estuaries provide nurseries where young wildlife can grow. Estuaries filter out toxic pollutants. Estuaries absorb water and protect coasts. People work in estuaries and visit them to boat, swim and fish.

Question 3: What kind of estuary do you live in Oscar?



Answer: Oscar lives in a salt marsh estuary. Trees are upland in a salt marsh, not in the water like a mangrove. Owls live in upland trees. Crabs and clams live in the mudflats in both salt marshes and mangroves. Grasses grow in the salt marsh. Otters have thick coats to keep warm. Mangroves are only in warmer climates, but salt marshes can get cold.

Summary: Estuaries form where freshwater meets the ocean. Most estuaries are either salt marshes or mangroves. Salt marshes are in warm or cold climates, and trees only grow upland in salt marshes. Mangroves are only in warm climates, and mangrove trees have tangled roots that grow in the water.



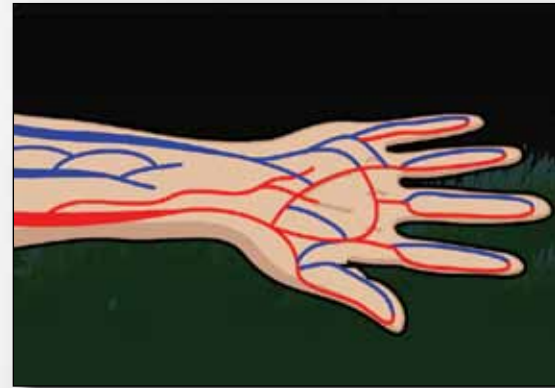
Oracle: Very well. I know of your home.



The few waters that still pass through bring me news of it.



Water is the blood of the estuary, the streams and rivers its veins and arteries.



The veins of this estuary are mottled, its arteries severed. Just as your blood, the water must flow properly to carry nutrients to the body of the estuary and keep the plants alive.



Clear the blockages, heal the waterways, and then come back to me. Do you understand?

Valerie: Yes

Oracle: Good. Now, I do not expect you to accomplish this feat on your own. I have some help for you.



Valerie's attention is drawn to a rather large clam. However, she doesn't seem all that impressed

until... the shell pops open, complete with fierce eyes and a helmet!



Oracle: He has been my retainer for a long while now, and will be of great help to you. Good luck; I await your victorious return.

The Oracle sinks back into the water. Claminator hops forward to greet them.

Claminator: MEIN NAME IST MUSSELS VON OYSTERSTEIN! BUT YOU MAY CALL ME ZEE CLAMINATOR!



Oscar: I guess no one ever told him about using his indoor voice...

Claminator: IST ESTUARY! IST OUTSIDE!

Val: Mr. Claminator... How are you supposed to help us, exactly?

Oscar: By being a tasty little snack, of course. Valerie, help me find a rock, would you?

But the Claminator won't be lunch without a fight! Oscar realizes he's in over his head when the Claminator has clamped onto Oscar's tender tail.



Val: Stop it, Oscar!
He's here to help us! So, Claminator, what can you do for us, exactly?

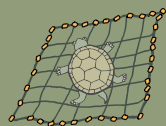
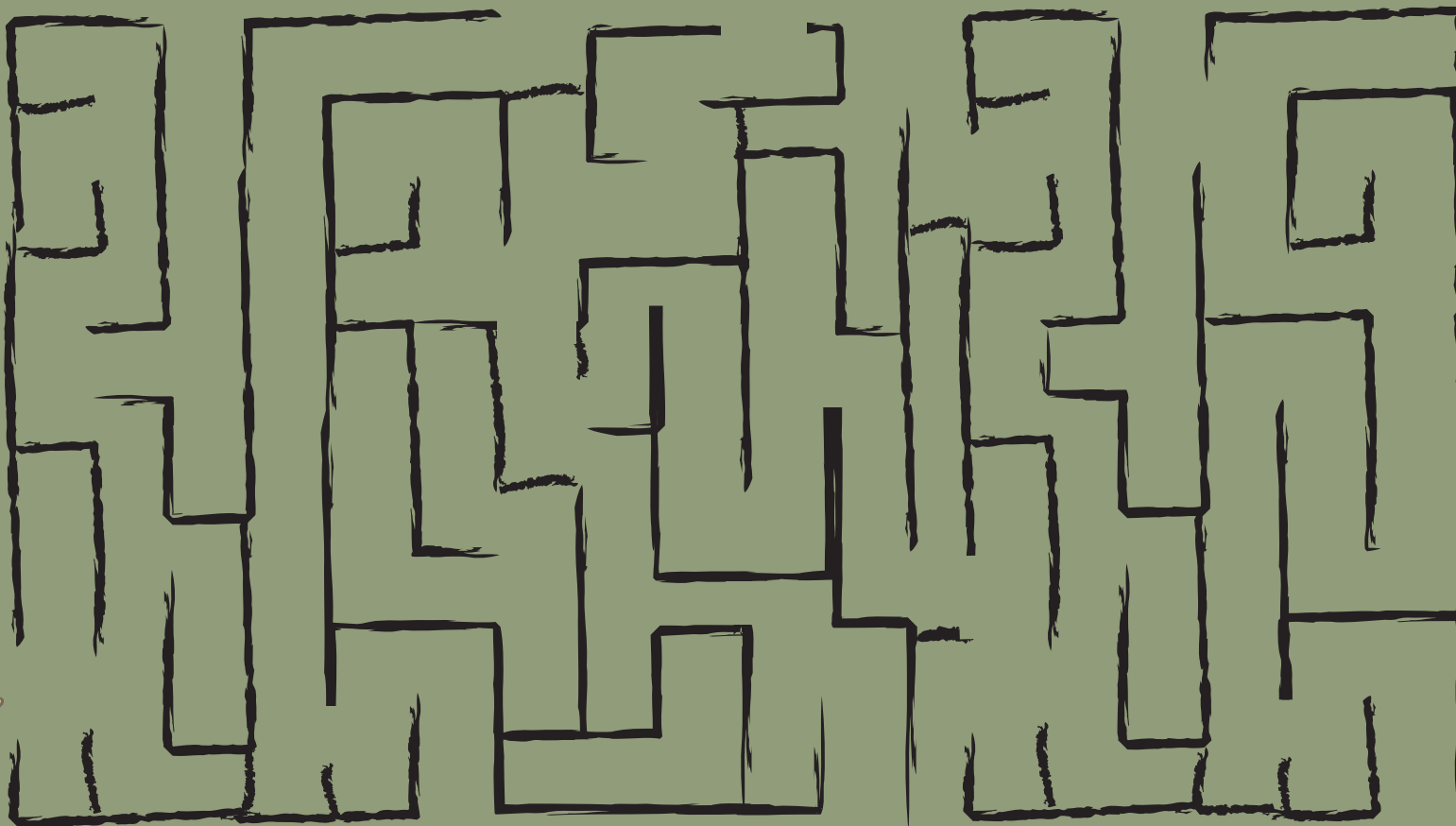
Claminator: CLAMINATOR IST STRONG
LIKE ABALONE!



Game 1: Restore the Water Flow

Help restore the water flow to this estuary!

Connect the trash, yard waste, fishing net, toxic waste and silt with the tool used to get rid of each obstacle.



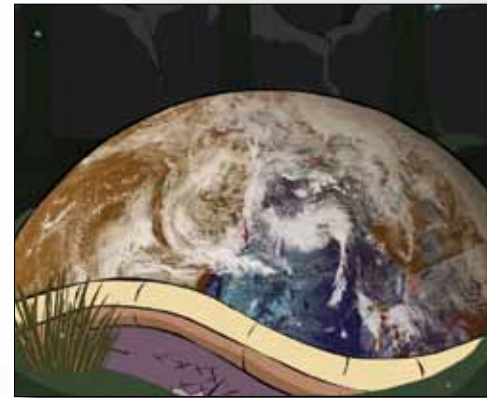
Val, Oscar & the Claminator return to the Oracle, eager to tell her the good news. Wise as she is, though, it seems she already knows.

Oracle: You are indeed a friend of the estuary, Valerie.

Already the waters bring news of tributaries almost lost to the heartbeat of this place. They tell me of times forgotten, when the world was newborn, and the land pure...



The Oracle turns, drawing Valerie and Oscar into the world on her back, and they are transported to a time in the Oracle's memory when the estuary was healthy.



Oscar: This is how the world was, Valerie.



The team sees many things that have been conspicuously absent since they arrived: green plants, singing birds, and fish swimming through the flowing waters. Oscar recognizes this estuary as his own from the stories his grandfather told him.



Oscar: My grandfather used to tell me tales of the past when I was a pup.

As Oscar tells his story, the world of the Oracle's memory changes to match. Valerie finds herself looking at Oscar's grandfather from long ago.



Oscar: He said you could swim right out to the ocean, and never go hungry, and return home to plentiful plant bedding. He said the grasses would cradle you, the water rocking you gently until you drifted off to sleep in peace...

We have to save this place, Val! Granddad tried so hard for us, and I want to do the same for my family.

Inspired, the Claminator starts to remember his grandfather, and the group gets a nostalgic glimpse at a baby Claminator.



Claminator: JA... CLAMINATOR REMEMBERS GRANDPA GEODUCK. OH, ZEE THINGS HE USED TO SAY TO CLAMINATOR... "YOU'RE MY 2,745th FAVORITE GRAND-SON." "CLOSE YOUR RADULA WHEN YOU'RE EATING." "DON'T ATTACH YOURSELF ON MY BACK." CLAMINATOR MISSES GRANDPA GEODUCK...

Oracle: This place has withered, but it is sick, not old. Chemical pollutants poisoned the plants and animals here. You have made the water flow again. Now, you must bring back the plants, so that they may hold the ground firm.

The Oracle sheds a tear. When it hits the ground, a plant appears, rife with seeds.

Oracle: These plants will [be another step on the road to reviving our beloved home... they will only flourish if planted in the correct area. I will grant you the power to control the tides and pass time so you may see if you planted correctly in an instant. When the plants have been restored, the animals that eat them will return, and in turn the hunting animals will also return. With the power of a tiny seed, the ebb and flow of life begins anew.



Game 2: Restore the Food Web in this Estuary's Habitats.

Help rebuild Oscar's home by solving this 'Word Search' puzzle! In all estuaries, animals and plants rely on each other through the food web.

Find the hidden plants, consumers, and predators that live in each habitat zone (upland, marsh, mudflat, and channel) to help keep this estuary balanced.

*Hint: *Some plants and animals "live" in more than one area!

Plants: creeping wild rye, coast live oak, pickleweed, alkali heath, eelgrass, algae.

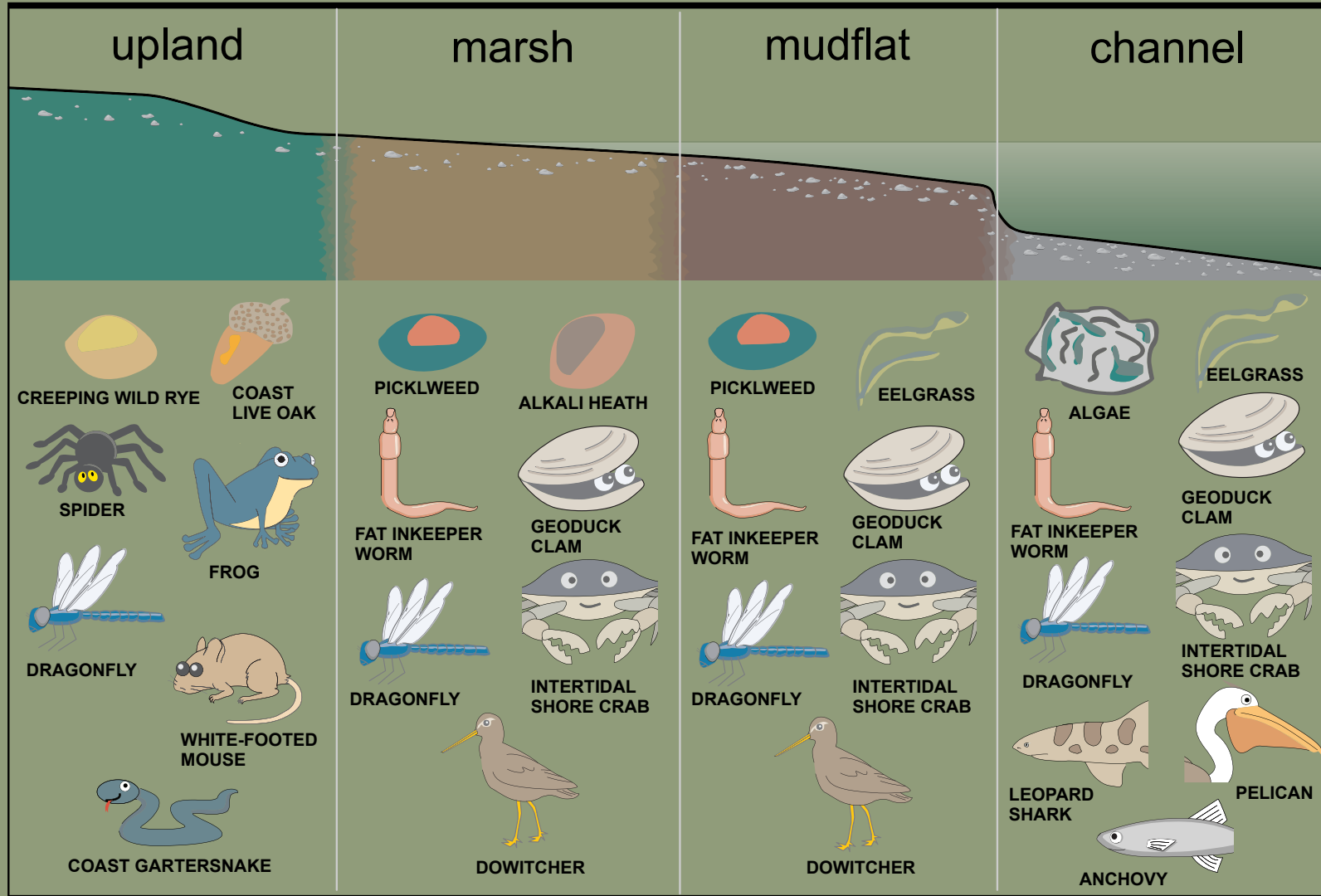
Consumers: spider, frog, dragonfly, fat inkeeper worm, geoduck clam, intertidal shore crab, anchovy.

Predators: white-footed mouse, coast gartersnake, dowitcher, pelican, leopard shark.

	upland								marsh								mudflat								channel										
C	A	X	J	G	B	K	L	J	U	T	E	V	J	K	Y	L	B	M	J	G	H	Y	G	Y	U	I	O	P	F	R	U	I	K	B	B
R	B	F	G	H	K	E	O	I	U	Y	T	F	G	H	K	L	G	A	H	Y	M	F	R	N	H	K	L	L	Y	G	T	S	R	Y	I
E	O	S	G	H	K	S	V	U	I	K	F	L	L	S	K	N	B	X	R	Z	G	U	I	L	J	D	Y	U	W	H	E	F	A	Y	U
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N	N	Z	X	D	S	D	C	W	E	R	G	H	J	K	M	B	V	V	N	P	O	I	O	M	T	R	R	E	A	S	D	F	R	G	H
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M	C	K	I	J	Y	G	T	F	E	D	W	S	T	G	Y	B	U	N	I	P	O	F	H	B	G	L	F	C	G	V	A	C	T	P	I

CONGRATULATIONS!

You restored a balanced estuary. Oscar has plenty of food now!



The friends return to the Oracle, pleased with their accomplishments. New life has returned to the estuary; green plants and healthy animals surround them.



However, a sinister darkness that has been haunting the edge of Valerie's vision since coming to the magical estuary is still about.

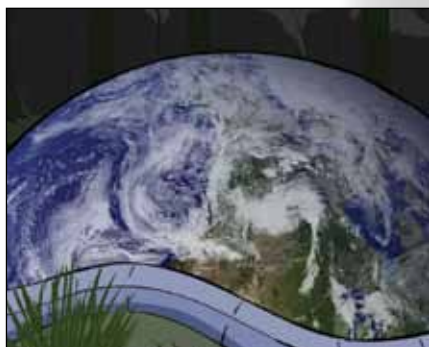
Val: What's happening to you?

From all about the seemingly clean estuary it oozes, a vile black whose oily tendrils snake their way by Valerie's feet and consume the Oracle. Valerie's pride is quickly replaced with fear and panic.

Oracle: You have done much for this place, but I fear it is not yet safe. The forces that seek its destruction have become desperate. I no longer possess the strength to hold them off...



Once again the Oracle draws the trio into the world on her shell, but this time it is a vision of a possible future, and it is worse than Valerie could have imagined.



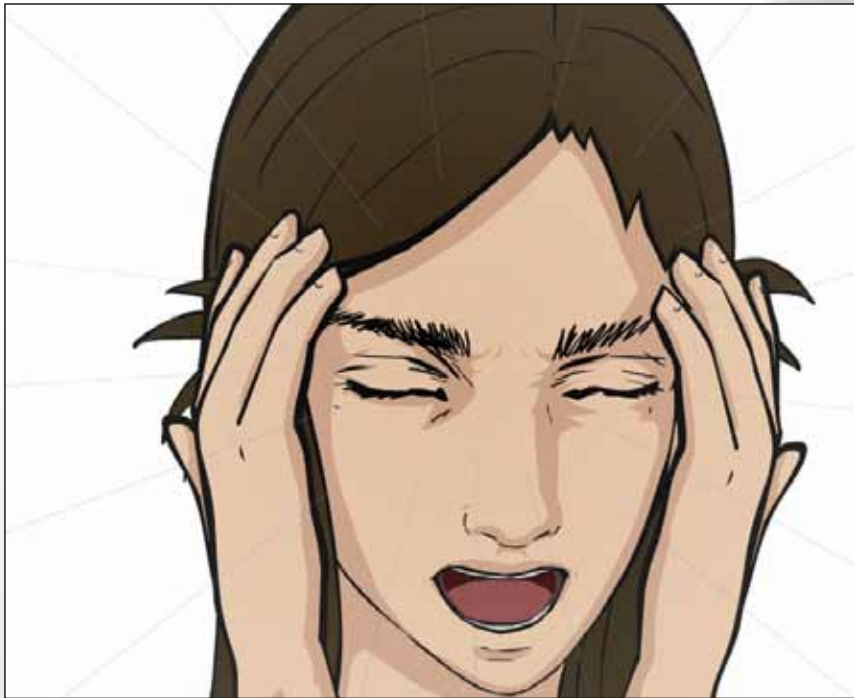
A barren void greets Valerie and her friends. The sun, harsh and bleak, filters through a dead, rust-colored sky. Nothing could possibly live here, and indeed nothing does.



But even here, the slithering darkness attacking the Oracle seeks to destroy more. Val can do no more than watch as it engulfs the Earth, creeps into the sky, and swallows the Sun itself, leaving only darkness.



Valerie screams, unable to abide the sight any longer, and is summoned back to the estuary, where the situation is no less dire.



Val: What's going to happen?



Claminator: NO! MEIN ORACLE!

The Claminator, faithful to his Oracle, lunges at the seeping ooze, only to be thrown back as if with a mere thought.



Val: What's happening to you? What's happening to the land? That can't be the future! Look how much we've done already! Are you telling me all this was for nothing?

Oracle: No. You have brought this place back to life, but it is still weak. There is much that still threatens it. You must defeat the monster that has congealed of the blight that plagues my home. It has taken me, but you and your friends have the power to vanquish it. Valerie, you do not know how much you have done. You do not know how long I've waited for one such as you to arrive.

Do not be dismayed. You are so close. Great things will come to pass if you succeed. Great things...



Finally, the malevolent sludge takes its final toll, and the Oracle's life ends before Valerie's eyes.



Suddenly, the Oracle's body begins to glow with an inner light, casting back the slime.

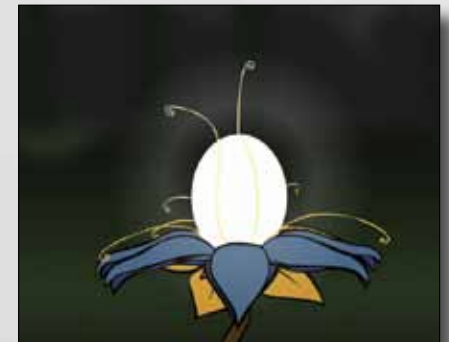


As the light condenses and dims, Valerie is able to see what has become of the Oracle: a blue flower, unlike any she has seen before, sits in the estuary with delicate poise.



Slowly, immaculately, the flower blooms. As the petals peel away, they expose their precious fruit: a single large egg, perfectly white and tangibly alive.

A new life, and new hope.



Valerie reaches out to touch the miraculous egg, but the muck has rallied itself, lashing out at Valerie. In its insatiable greed, the darkness consumes even the egg, this last gift of the Oracle.



After this final act of gluttony, the mire congeals into a monstrous form. Though loathsome and hideous, it speaks to Valerie with a charm and intelligence that contradict its guise.



Bane: Greetings, Valerie.



Val: How do you know my name? What are you?

Bane: I am the newest inhabitant of this estuary. I am Bane. I have seen the things you have done, and felt them. They have hurt me, Valerie. Why do you wish me harm?

Val: You're destroying this place! Everything you've touched has wilted and died!



Bane: Such is the price of time's march.

I am new. I am strong.

Val: But the Oracle...

Bane: The Oracle! That hag, who claims to know everything? Who tells you what is best for everyone, for the whole world? She who has commanded and manipulated you into doing her bidding from the very start?

Open your eyes, Valerie! It is I who will pave the way to the future. In my wake there will be... Perfection. A utopia.



Val: “Clean” and “dead” aren’t the same thing!
That doesn’t have to be the price we pay for
progress!

Progress can be in harmony with nature not
against it.

Progress should sustain our world, not destroy it!


Bane: You poor, silly girl. You cannot stop time.
You and your friends, I’m afraid, have just be-
come... obsolete.


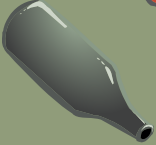






With that, Bane lurches toward Valerie and her
friends. They must now fight to save the estuary,
and themselves!





















Game 3: Defeat the Pollution Monster!

Decode the secret message and defeat the Pollution Monster! The hidden message in this puzzle reveals what you can do to remove the trash destroying the estuary and threatening the environment. Each type of garbage matches up with only one letter in the box on the right.

Hint:  is letter "D"

R	
	L
Y	
	D
S	U
	
C	
	

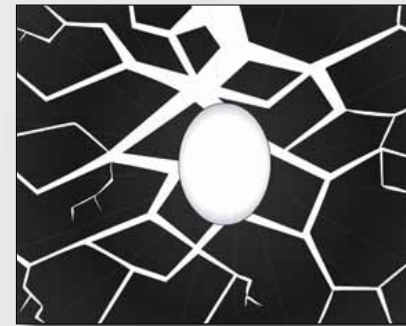
Though they won the battle, Valerie passes out from exhaustion. When she comes to, she finds herself alone in the dark, with no sound or light to guide her way.



Wandering aimlessly in an endless world of dark, Valerie sees a speck of light in the distance. As she approaches it, she discovers it is the Oracle's egg.



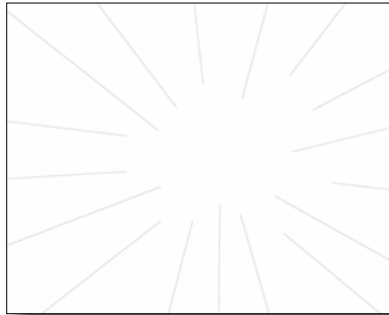
Valerie again reaches out to touch it. As if in response, the life force inside the egg intensifies, shattering the darkness and shrouding Valerie in pure light.



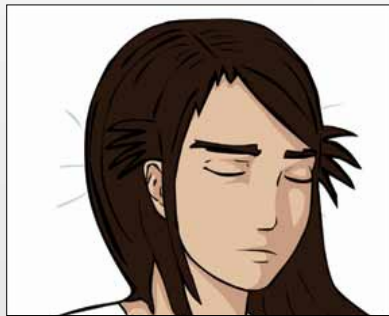
Half-awake, Valerie hears concerned voices.



She groggily glimpses her wrecked bike before slipping into unconsciousness again.



Val re-awakens in the hospital, sore and bruised, but otherwise unharmed. Seeing her damaged bike helmet, she can't help but wonder: was it real?



Valerie's mother, now well again, arrives with strange blue flowers Valerie knows she has seen somewhere before.

Mom: The card says it's for you. Who do you know named Oscar and Mussels Von Oysterstein?



Valerie smells the flowers, their earthy perfume flooding her mind with visions of her friends' estuary.



She sees the plants and animals of the estuary restored to their natural order.



She sees Oscar and his family, happy and well-fed.



She sees the Claminator has found a new friend.



And she sees a hatchling turtle, with the world on its back, plodding toward the water.



Mom: What did you do to get yourself so roughed up, anyway?

Valerie, with a knowing smile, simply replied:

“Just helped out some friends.”



The End

<http://games.noaa.gov>