Images of Sal (Ring-billed Gull) provided by Lisa de Leon.

Images on the cover, ROV under water, and fish tagging, courtesy of Oceans Learning Partnership/Patrice Halley.

Photos of the Puffin Patrol provided by Suzanne Dooley.

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Jake and Sal Go To School! is the second made-up story based on a true event. In 2011, a Newfoundland and Labrador puffin was found in Montreal and some very kind people got him back home. His real name is Paddy, not Jake. We like the idea of a puffin having an adventure and so he became the hero of our stories.

Captain Jan Negrijn is the real captain of a floating classroom - a 42-foot inshore tour and research vessel named the MV Coastal Explorer. This floating classroom is an innovative, at-sea field program developed in collaboration with science teachers to educate students about the ocean and coastal ecosystem of Newfoundland and Labrador.

Captain Jan Negrijn has never spoken to birds and has never had them as students but he wishes he could.
Chapter 1

Jake and Sal are best friends. Some people are surprised because Jake is a puffin and Sal is a seagull. Sometimes puffins and seagulls don’t get along, but Jake and Sal have been friends as long as they can remember. They live in a wonderful place called Witless Bay in the province of Newfoundland and Labrador. The other thing you should know is that they love to go on adventures and discover new things.

On a warm and sunny morning, Jake was sitting on a rock thinking it was time to go on another adventure. Jake was waiting for Sal to go fishing for their breakfast when Sal came soaring in and plopped down next to Jake.

“I don’t want to learn how to make a nest!” Sal squawked.

“Who said you had to learn how to make a nest?” Jake asked.

“My mother,” said Sal.

“Why don’t you just live in your mom’s nest?” asked Jake. Jake lived in a lovely warm burrow hidden in the rocks. Some birds make nests and some birds make burrows.
Seagulls build nests to live and lay their eggs in.

“Mum says every bird should know how to make their own nest because you can’t live with your parents forever and you need a place to put your own eggs,” answered Sal.

Jake felt faint. He certainly didn’t want to have any eggs...yet.

“Well, I’m not going to make a nest. I have a better idea. We are going on a new adventure,” said Sal.

Jake was relieved. This sounded much better than building a nest.

“Where are we going?” asked Jake.

“We are going to school!” replied Sal.

“What is a school?” asked Jake.

“It is a place to learn new and interesting stuff,” explained Sal.

“Where is it?” Jake asked, getting excited.

“It’s right over there.” Sal pointed with her wing to a boat out in the bay. “It’s called a floating classroom.”

That’s when two small birds decided that their next adventure would be on the MV Coastal Explorer.
Chapter 2

Before any bird goes on an adventure, they must get their parents’ permission. So Jake and Sal stopped at Sal’s home nest first.

“Mum...Mum...Mum...MOTHER!” yelled Sal.

“Sally darling, I am old but I am not deaf. Stop squawking so loudly. What is it, my little one?” Sal’s mother asked calmly.

Jake looked at his best friend in the entire world and exclaimed, “SALLY! Your name is Sally? But you are a boy and boys aren’t called Sally,” said a bewildered Jake.

Sal looked at Jake like he had two heads.

“My name is Sal. It is short for Sally. I don’t like the name Sally. I like Sal and of course I am a girl, aren’t I, Mum?”

“Oh yes, my darling, you are a girl.”

“But...but ...I thought you were a boy,” said Jake.

In Jake’s defense, boy seagulls and girl seagulls all look about the same, but no one really cares.
Puffin families are a little quieter than seagull families. This is me getting mom's permission.

“Well, I am a girl. But that’s not the point. Mother, I have an announcement. I don’t want to learn how to make a nest for my eggs. I want to go on another adventure. I want to go to school.”

“I think that is a marvellous idea,” squawked Sal’s mother.

“So I don’t have to learn to build a nest?” asked Sal.

“Don’t be such a silly seagull, Sally,” said Sal’s mother. “Of course you have to learn how to build a nest and so does Jake. Every bird worth his or her wing feathers must learn how to build their own nest. You just don’t have to learn that right now. Go off on your adventure and I want to hear all about it when you get back, my sweet.” With that, she gave Sal a hug.

Off they went to talk to Jake’s mom, who also gave her permission. Jake had gone on an adventure before and came back safely. Jake’s mom was a wise and easygoing bird. Jake and Sal were ready to go to school.
Chapter 3

Early the next morning, Jake and Sal lined up on the wharf with the other students in front of the MV Coastal Explorer. Captain Jan greeted them warmly.

“Good morning, students. I am so happy to see you all here on this beautiful day. Let’s get our life jackets on and board the floating classroom.”

Jake and Sal looked at each other and looked at the life jackets. None of the life jackets appeared to be the right size.

Captain Jan looked down at them and said, “Don’t worry, my feathered friends, only humans are required to wear life jackets on board the boat. But please be very careful to follow all the safety rules. I wouldn’t want you to fall overboard. You might miss some of my lessons!”
Sal and I helping Captain Jan pull the plankton tow out of the water.

Jake and Sal decided right away that they liked Captain Jan very much. Once everyone was on board and they learned the safety procedures, they were ready for the open water.

The first lesson was about plankton. Captain Jan explained that plankton are teeny tiny organisms that live in the water. They are so small that you can’t see them, but they are very important because larger animals eat them. Animals as big as whales and as small as capelin eat plankton.

“Capelin! I love to eat capelin. They are my very favourite,” said Jake.

“Well, my little puffin, you have been eating plankton too,” said Captain Jan. “Let’s take a closer look.”

Captain Jan took a big cone-shaped net, called a plankton tow, and dragged it through the water behind the boat. At the end of the net was a small container that captured the water.
Captain Jan put some of this water on a slide and looked at it through a microscope.

All of a sudden they could see that what looked like just plain old water was alive with all sorts of tiny sea creatures swimming around.

“Can you believe that?” squawked Sal. Jake just shook his head. Jake had been swimming in the water all his life and he had no idea he was sharing the ocean with so many creatures. This was fascinating.
Chapter 4

Their next lesson was about the Remotely Operated Vehicle (also called ROV). Captain Jan asked the students if anyone had ever played with a remote controlled toy car. Some of the students raised their hands.

Sal and Jake kept their wings down. They had never played with anything like that before.

Captain Jan asked the children, “If you wanted to study the bottom of the sea floor, how would you do it?”

“I would get scuba gear and dive down to the bottom and get stuff,” said one student.

“Excellent answer. That’s a great way to collect samples from the ocean. But if you couldn’t dive or it wasn’t safe, then you could use an ROV like this one.”
Captain Jan pulled out the lime green ROV. It had what looked like a little claw on the front. Captain Jan put it in the water with a splash. Down, down, down it went.

On board the boat was a computer screen that showed everything the camera on the ROV could see. Using the controller attached to the computer, Captain Jan could steer where the ROV went.

Captain Jan turned to Sal and asked, “Would you like to steer the ROV?”

Sal squawked a “YES PLEASE!” and with a few ruffled feathers and a lot of help from Captain Jan, Sal was driving the ROV.

Sal was so excited. He exclaimed, “Jake, I can’t believe this. I have never been under the water before! Is that what it looks like when you swim?”
Jake forgot that Sal could swoop into the water and bob along the top, but he couldn’t dive like Jake could. Jake thought about it for a minute.

“Yes Sal, it looks a lot like that.” Jake left out the part that it was really fun to dive deep in the ocean. Jake didn’t want Sal to feel bad about something Sal wasn’t able to do.

When everyone was looking at Sal, Jake went out on the deck and dove over the side. The water was wonderful. Puffins can’t feel the cold because their feathers are waterproof and keep them warm.

It took a moment, but finally Jake could see the ROV travelling along the sea floor. The claw on the front was holding a clam shell to bring up to the boat for the students to examine. Jake saw fish swimming through the long green eel grass. It was so peaceful.
Old cans and bottles do not belong on the sea floor. Some people throw trash in the ocean to get rid of it. Trash should be recycled.

Then Jake saw something that didn’t belong there. It was an old dirty toilet seat. He looked again and saw a tire from a car. What was that doing there, Jake wondered.

Jake swam as fast as he could to the surface and flopped back on the boat.

“Captain Jan, what was all that junk doing on the ocean floor?” asked Jake.

Captain Jan shook his head and said sadly, “Some people look out at the ocean and because they can’t see anything underneath the waves, they think it is okay to toss whatever they don’t want into the water.”

The students, Sal, and Jake thought that was the dumbest thing they ever heard. They all agreed that they would never do something like that. Never, ever...ever.
The next lesson was about how scientists keep track of the number of fish in the ocean. Sal and Jake were very interested in this lesson because they loved to eat fish. If you remember, capelin is Jake’s very favourite food.

Captain Jan explained that tagging fish is an important way to learn about fish in the water around Newfoundland and Labrador. If you tag a fish properly, you can learn about where it moves. Some fish move around, depending on how warm or cold the water is.

You can also learn how healthy the fish are and how healthy their ocean environment is. If they are laying eggs and making more baby fish, then they are healthy and happy fish. We want the fish to be as healthy as possible.
Captain Jan asked Jake a question, “What do you have in common with this fish?”

Jake thought for a moment and replied, “We both swim?”

“No, you are both smart,” laughed Captain Jan, “because you are both in a school.”

Everyone laughed except Jake. Sal leaned over and whispered in Jake’s ear, “When fish travel together in a bunch, it’s called a school of fish.” Jake was so glad he had a friend like Sal. It is no fun when you don’t understand a joke. It is nice when someone quietly explains it to you.

Captain Jan showed the students how to put the tag into a cod fish without harming it. First you catch the fish and put it in a container of water which makes the fish very relaxed. Then you gently put it on a special table, carefully place a tag in its fin, and release it back into the water.

As the fish swim around doing fish things, the scientists are gathering information on their computers that is transmitted from the tag. Scientists and fish harvesters are protecting the cod by making sure they do not take too many out of the ocean. They hope in the future there will be lots and lots of cod again. Some students say that cod is their favourite fish to eat. Jake knew better, because the best fish in the whole world is capelin.
Chapter 6

This had been such a wonderful day. Captain Jan said it was just the beginning. There are so many things to learn about the ocean. "I have been going on ocean adventures for a long time and I learn something new every day."

One student asked if they could have a job like Captain Jan when they grew up.

“There are many jobs that involve the ocean.” Captain Jan took a big breath. “You can be a ship’s captain or mate, marine biologist, fish harvester, scuba diver, marine educator, science writer, filmmaker, photographer, ecotourism guide, environmental lawyer, ocean policy expert, veterinarian, economist, marine archaeologist, marine historian, aquaculturist, marina manager, environmental planner, botanist, ecologist, hatchery specialist, maritime architect..."
Captain Jan took another big breath and said, “I am sure there are more but I had to catch my breath. The most important thing to remember is to do something you love. Even if you decide to do something else, you can still volunteer to help protect our ocean. You can clean up a beach or go on the Puffin Patrol.”

Captain Jan explained, “Our little puffin friends are attracted to the lights from our cars and houses. They wander away from their nests and sometimes they fly into traffic and get hurt.”

This is terrible, thought Jake, Sal, and the other students.

“What can we do?” asked Jake.

“Join the Puffin Patrol in Witless Bay,” said Captain Jan. “In the evenings, people gather the lost puffins with butterfly nets and keep them safe until morning. Then they put them back into the ocean the next day when the puffins can see properly to get home.”
As they were docking the MV Coastal Explorer, Captain Jan said, “I look forward to seeing you all tomorrow, and as you go home I want you to remember to turn off as many lights as you can so that the baby puffins won’t wander away from home and get lost.”

This was not a problem for Sal and Jake. They didn’t use lights. When it got dark, they just went to sleep.

“Jake!” said Sal, “we will have to let our mothers know that we won’t be coming home to learn about building nests any time soon. We have another adventure to go on. We have to go on the Puffin Patrol.”

Jake nodded thoughtfully. His mother would understand. Jake and Sal had to get ready for their next adventure.
“Jake and Sal Go To School!” is an imaginary story about how a little puffin and his best friend Sal the seagull go to school. They join Captain Jan on the floating classroom and learn all about the ocean.