Beach Days - Save the Waves

The following is a transcript for the comic book Beach Days – Save the Waves. This comic is available at the Shark Lab’s Beach Safety Comic Book Program.

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Panel 1: Nick and his friend are at the beach. They are all worried by the sea lion that is stranded sick on the beach. Nick asks concerned “Who can we call?”

Panel 2: Nick, Catalina, Kai and the lifeguard are guarding the sea lion. The lifeguard responds to Nick’s question “Well, we have a rescue center known as the Marine Mammal Stranding Center.” Chad asks confused “The what?” Learn more about Pacific Marine Mammal Center.

Panel 3: Ashley, excited, explains to Chad “The MMSC is a private non-profit US organization that helps rescue, rehabilitate and release marine mammals who are injured, ill, or abandoned.”

Panel 4: Ashley calls the lifeguard by her name (Irene) and says “Irene, we can watch the sea lion.” Irene then responds “Sounds good! I’ll run over the lifeguard tower and tell Ronnie to give them a call!.”

Panel 5: Catalina worried says “Poor thing. Most sea lions I’ve seen around shore seem healthy. I’ve never seen one this sick and confused.”

Panel 6: There’s still a few people near the sea lion. Nick is sitting on the sand, sad and concerned. Kai touches Nick’s shoulder to give him some comfort and says “Don’t worry Nick, help is on the way. I’m sure the sea lion will be just fine.”

Panel 7: Irene is running as fast as she can.

Panel 8: Irene screams “Ronnie! There’s a sea lion in distress on the shore!”

Panel 9: Ronnie who is in the lifeguard tower. Turns and sees Irene running. She shouts “Call the MMSC so they can send out help. ASAP!”

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Panel 1: Ronnie and Irene are at the lifeguard tower. Ronnie makes the phone call and says “Hello? This is Ronnie from the Surf City beach. We have a sea lion in distress!”
Panel 2: Ronnie finishes the phone call and says, smiling “They’re on their way! They’ll meet us here. You can take them to the sea lion.”

Panel 3: Nick, Catalina, Ashley, Kai, and Chad are sitting on the sand waiting for the help to come. They are all worried. Nick says “UGH! What is taking so long?” Chad hears a loud car’s engine sound from a far and says “Huh?”

Panel 4: Chad sees the truck approaching, and Irene is in it. She is waving her hand to them. He quickly stands up and says “Guys! Look! It’s Irene! and she brought help!”

Panel 5: Irene sticking her head out of the truck window says out loud to the guys “Hi!! MMSC is here!”

Panel 6: All the guys excited stand up. Ashley says “So cool! I’ve never seen them in action before. I’ve just read about it.” And Kai says “See Nick! Told you not to worry. We can always trust lifeguards to bring help!”

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Panel 1: Irene gets out of the car and says “Thanks for looking after the sea lion while I got help.” Two members of the MMSC carrying a stretcher are walking behind her.

Panel 2: The sea lion is laying on the sand. His eyes are closed and he looks tired. One of the MMSC members says “Poor thing. It doesn’t look like it’s in its best condition.”

Panel 3: The member of the MMSC approaches the sea lion and says “Don’t worry, We’re here to help.”

Panel 4: Chad, worried, asks the MMSC people “Why is it sick?”

Panel 5: A lot of people, including the guys are surrounding the sea lion and looking at the MMSC people do their job. One of the MMSC members answers Chad’s question “We won’t know until we examine it, but it could be due to domoic acid poisoning. There’ve been a lot of plankton blooms lately in the ocean.” Kai asks them “What does plankton have to do with the sick sea lion?”

Panel 6: One of the MMSC members explains to Kai “Well, when we get a lot of rain and periods of calm conditions, tiny marine plants called “phyto-plankton” can reproduce really fast and grow out of control.” - “This is called a bloom which turns the ocean red causing a Red Tide, also known as a Harmful Algal Bloom (HAB).” Learn more about red tides.
Panel 1: The other MMSC member now says “These phyto-plankton produce domoic acid which gets passed up the food chain, where the poor sea lions end up getting sick if it gets too much of it.”

Panel 2: Nick, concerned says “We play in the ocean sometimes when it’s red. How come we don’t get sick like the sea lions?”

Panel 3: The members of the MMSC have put the sea lion on the stretcher to take it to their facilities for further examination. One of them says “PLEASE MAKE WAY!” while the other one answers Nick’s question “You can get sick from eating shellfish that are exposed to HAB, but that’s rare because we warn people.”

Panel 4: The MMSC members are taking the sea lion away. One of them says “Time to get this sea lion examined. Can you help us clear the way?”

Panel 5: Catalina to help them screams “PLEASE STEP AWAY!”

Panel 6: Nick shouts “PLEASE CLEAR THE AREA FOR THE SEA LION PEOPLE!!”

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Panel 1: The MMSC people have placed the sea lion inside their car. Irene says to the guys “Thanks for helping out guys. I’m going to head back to my tower.” One of the MMSC members says “Thanks a lot kids. Stay safe out there when surfing.”

Panel 2: The guys now look at each other. They are concerned and curious about what the MMSC people were explaining to them. Ashley asks “Where can I find out more about HABs?” Kai with a big smile, replies to her “Hmm? I know someone.”

Panel 3: Kai, very excited, says “My auntie is a marine biologist at a university. I’m sure she can help us out.”

Panel 4: It is raining and the guys (Catalina, Ashley, Chad, Kai, and Nick) meet outside Beach City University. Catalina greets everyone by saying “Hi guys!” Kai says “Hey Nick! Now that we’re all here. Let’s go inside, she’s waiting for us.”

Panel 5: All the guys enter the university together and walk towards Kai’s aunt’s lab. Kai’s aunt sees them and says “Hello Kai, I see that you brought your friends” and Kai replies “Yeah! Hey guys, meet my auntie Dr. Siliva.” All the guys smile and wave their hands to greet her.
Panel 6: Kai now gets to the point and asks his aunt “Auntie, we were at the beach yesterday and we encountered a sick sea lion. The MMSC showed up and the vet mentioned something about HAB. Can you explain?”

Panel 7: Dr. Siliva with a sad face replies “That’s something we’ve been studying for quite some time. We now know that HABs can be caused by nutrients run-off from land.”

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Panel 1: Dr. Siliva now starts explaining the matter more in depth “Algal blooms are made up of phyto-plankton, they need lots of nutrients to grow and “bloom” like that.”

Panel 2: She keeps explaining “Nutrients from the fertilizers we can use on lawns can actually get washed into the ocean.”

Panel 3: She continues “For example, when there’s heavy rain like today, some fertilizers will wash into the ocean.”

Panel 4: She says: “But there’s something else…”

Panel 5: She finishes her explanation by saying “Another big source of nutrients come from storm drains and sewer pipes.” Kai doesn't understand what that is, so he asks “Huh? Like what sort of nutrients?”

Panel 6: Dr. Siliva replies “You all went to the bathroom this morning right?”

Panel 7: No one replies but she continues explaining “Where do you think all those leftovers nutrients end up? We have a lot of people living close to the ocean and everything we dump down the drain can end up in the ocean if we don’t collect and clean it first. That is what the Sanitation Districts do!”

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Panel 1: The following morning. The kids are walking to the beach. They can’t wait to catch some waves. Chad says “Man yesterday was tough! I can’t wait to hit the waves!” Kai then says “No kidding! I can’t even get the idea of us surfing in poop out of my head.” Ashley says “HAHA! EWW Kai! STOP!”

Panel 2: When they get to the beach, Ashely notices a sign. The sign says “ADVISORY: High Bacteria Levels” and the image of a person swimming crossed out in red. Ashley turns to her friends and says “Guys, check out the sign.”

Panel 3: Everyone is disappointed. They all wanted to surf so bad! Nick says “What, the beach is closed?”
Panel 4: Everyone is holding their surfing boards and looking at the water, feeling sad. Catalina comes out with an idea and says “I guess we can go fishing?”

Panel 5: Catalina asks Nick “Hey Nick, have you ever fished before?” Nick replies: “Once, when I was younger... with my pops.”

Panel 6: Everyone is still at the beach talking when they hear someone saying “HEY LOSERS.”

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Panel 1: The voice came from one of the guys Chad used to hang out with. One of the guys says “Get out of the way. These are our waves today” and the other one says to Chad “Hey Chad! Having fun with the Goonie nerds?”

Panel 2: Chad, annoyed by them, says “You guys aren’t serious about going into the water right now right? The beach is closed due to high bacteria.”

Panel 3: Chad continues “If you go out in such high bacteria levels it might make you seriously sick.”

Panel 4: Chad’s old friends start laughing. One of them says “Wow! He really did become a “little Einsteins Geek” and the other one says “What a nerd!”

Panel 5: Chad can’t take it anymore and says out loud “We’ll see who’s laughing later” One of the guys says to him “Yeah Yeah Whatever”

Panel 6: Nick and Catalina are proud of Chad for standing up for himself. Catalina says “Right on Chad!” and Nick says “Those guys will learn the hard way.”

Panel 7: Catalina, very excited, now asks Nick “Are you ready to catch some fish!?“

Panel 8: Nick, trying to remember something, says “Hmmm come to think of it. I’ve never really caught a fish. My dad did it for me.”

Panel 9: Ashley teasing him says “Then today is your lucky day, “GOONIE NERD.”

Panel 10: Kai raises both of his arms and shouts with excitement “YEEES! FISHHHHH! LET’S GO FISHING!!”

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Panel 1: The gang is walking by the street. Chad notices something they all have seen before but never paid any attention to and says “Wow look at all this water running
“Well auntie mentioned that after it rains, a lot of the storm water can’t be processed.”

“Kai says ‘Well think about it- most stuff on the road go down the storm drain.’”

“Who knows what some people throw into these drains?”

“Most stuff on the road go down the storm drain.”

“Look at that trash in the gutter!”

“So we have to be considerate and cautious of what we throw in the streets because it can get washed down the storm drains. In bigger cities, where pavement is all over, it can be difficult for the Sanitation District to catch and filter out some chemicals and kill some bad bacteria.” - “Which becomes a source of pollution that can harm marine life and even people.”

“So that means those guys are out there swimming in bacteria.”

“My auntie says it’s because of the poop” - “After a rainstorm, ocean water can be contaminated from the bacteria found in poop. Also known as E. coli.”

“ACTUALLY, all the animals in the ocean poop” - “But these bacteria come from animals that poop on land. Such as dogs, cats, birds, and worse of all… HUMANS.”

“WAIT! HOLD UP- YOU SAID WHO?! THAT ‘S GROSS!”

“Some of those bacteria come from accidental sewage spills, but some ALSO come from dog poop that their owners refuse to pick up.”

Learn more about human health at the beach.

“Well, I ALWAYS pick up my dog’s poop.”
Panel 2: Catalina says “Yeah! And let’s always tell our families to do so as well. I want to swim and surf in clean water.”

Panel 3: Now at the pier, Nick sees a man catching a fish. The man says “HA HA! THIS IS A BIG ONE.”

Panel 4: The fish is struggling. It has been hooked.

Panel 5: Everyone impressed says “WOW! LOOK AT THAT!”

Panel 6: The fisherman smiling says to the kids “This is a tom-cod! One of my favorite to eat for lunch. HE HE.”

Panel 7: Meanwhile, Ashley is reading a sign that says what fish species should not be eaten because they are likely very polluted. Ashley says “That fish is on that sign guys.”

Panel 8: Ashely says to the fisherman “That fish is on that sign sir! It says not to eat it because they’re polluted.” The fisherman annoyed replies “HMPH! I don’t believe any of that. They just don’t want us catching all the tasty fish.”

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Panel 1: One of the kids says to the fisherman “But it says there it can make you sick!.” A game warden hears the conversation from afar.

Panel 2: The game warden approaches the kids and the fisherman. He says “Hey gang, I see you caught a nice fish today. What’s going on over here?”

Panel 3: Ashley and Nick turn back and see the game warden. Ashley says “Huh?” and Nick says “OH! Hi officer, we were letting this gentleman know that it isn't safe for him to eat that tom cod.”

Panel 4: The game warden says “Hey there Mister, you’re not thinking of keeping that tom cod to eat are you?”

Panel 5: The fisherman says “Sure, why not? They’re very tasty.”

Panel 6: The game warden says “That tom cod could get you sick. Chemicals dumped into the ocean decades ago like DDT and PBCs have gotten into those fish. If you eat some, the heavily contaminated ones can make you sick.”

Panel 7: Catalina, a little sad, says “WOW, is that fish really that old?”

Panel 8: The game warden responds “Well, not exactly. That tom cod is probably around 3-4 years old. But, there’s still some of those pollutants out there.”
Panel 1 and 2: The game warden says “These chemicals known as PCBs and DDTs don't break down and still contaminate fish today that feed on things that live on the bottom of the ocean.”

Panel 3: The game warden explains “Those fish, then get eaten by bigger fish, and those fish get eaten by sea lions or people who end up with a lot of these chemicals in their bodies” - “So that's why we have to be careful and not eat these fish. Because us humans can end up with these harmful chemicals in our bodies.” Learn more about safe eating guidelines.

Panel 4: The kids are now nervous. Kai says “Yikes” and Ashley says: “So what you're saying is that these chemicals can kill us right away? Like poison?”

Panel 5: The game warden responds “No, these chemicals have slower effects on animals and humans.”

Panel 6: The fisherman now disappointed says “But I love these fish” The officer says to him “Don't worry, they can't make these chemicals anymore, but the ones remaining can still make you sick over time.”

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Panel 1: The fisherman angry says “So if they stopped making them, why do i have to worry about it?”

Panel 2: The fisherman turns and walks away while saying “You kids ruined my day. BYE.”

Panel 3: Catalina says “Thanks officer.” The game warden says to everyone “Remember kids: Always be careful what you dump down the drain.” Chad says “Of course! But officer, how do we know what chemicals are bad for fish and for us?”

Panel 4: Ashley says “My mom is always careful of what she pours down the drain. She says that there are potentially bad chemicals in many things.” “Such as things we use every day.” She continues “For example: bleach, old pills, some toothpaste and shampoo” - “So we try to use less! That will help the fish right?.”

Panel 5: The game warden says “Remember: It's not just what you pour down the drain. Chemicals also get into the air, which can get into the ocean. Think of all the stinky smoke from cars and truck exhaust pipes.”
Panel 1: Nick, excited, says to the officer “Which is why we do our best to do our part!.”

Panel 2: The game warden with a smile says to Nick “Glad to know you kids are contributing to a healthy planet!.”

Panel 3: The kids happily wave bye to the game warden, saying “Bye Officer Morales!.” Officer Morales replies “C’ya kids! Enjoy the rest of your day!”

Panel 4: The five kids are all looking at the ocean from the pier. Ashley, Chad, and Kai are holding their fishing rods. Meanwhile Nick sees something at the distance “Wow! Look at all the smoke coming out of that boat's exhaust pipe!”

Panel 5: A large cargo ship can be seen afar.

Panel 6: Kai says sadly “That seems like a lot of air pollution.”

Panel 7: Catalina, sad, looks at Kai and replies, “Yeah, ships and trucks are some of the worst air polluters now – This includes the release of carbon dioxide (CO2) into the air.”

Panel 8: Nick closing his eyes remembers his hometown, and says “The air pollution was really bad where I used to live, the air even smelled bad.”

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Panel 1: A couple who was next to the kids at the pier listens to their conversation. The man, then, interrupts the conversation saying “Sorry to intrude. Where are you from?.”

Panel 2: Nick responds to them “My family moved from Chicago.”

Panel 3: The man explains to Nick “Well… Cities usually have a lot more air pollution than smaller towns.”

Panel 4: The lady who was with the man says “We’re from Maryland and are just here on vacation and we’re looking forward to some beach time.”

Panel 5: The couple turns and approaches the kids smiling. The man has his arm around the lady when he tells the kids “We overheard that you were talking about air pollution. We’re both scientists at the Environmental Protection Agency.”

Panel 6: Catalina, excited, responds, “So you both study how pollution is affecting climate change!” And Nick, excited, says “That’s cool! So how does air pollution cause climate change?”
Panel 7: The man takes a deep breath and says to Nick “CO2 is one of the biggest forms of air pollution. We all are producing CO2 right now as we exhale.”

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Panel 1: Ashley, surprised, asks “AS WE BREATHE? I don’t know how long I can hold my breath.”

Panel 2: The lady, with a warm smile, responds to Ashley “The amount you breathe isn’t the problem hun.”

Panel 3: The scientist lady starts explaining to the kids, “Animals and humans produce CO2 and that’s okay because all plants need CO2 to make their food and in exchange gives us back oxygen.” She continues explaining, “It’s mainly all the fossil fuel burning machines like that big ship out there and our removal of plants in many areas to build cities are causing harm.”

Panel 4: And she adds “Because of this, the plants that are left can’t keep up with all the CO2.”

Panel 5: Chad, then, asks, “So what happens with the extra CO2?”

Panel 6: The scientist man responds to Chad, “See, that’s where it gets messy.”

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Panel 1: He continues explaining, “As CO2 gets trapped in the atmosphere, it can act like a magnifying glass causing the sun to warm the planet faster.” He also says, “This causes the air and oceans to get warmer, so glaciers begin to melt.” Learn more about climate change.

Panel 2: He adds “These changes in ocean temperature cause drastic changes in global climate.” While he says that, he thinks about the ice melting in the poles that is destroying the habitat of polar bears.

Panel 3: Kai, alarmed for the scientists’ explanation, asks, “So that’s why it was so warm this summer?”

Panel 4: The lady scientist to clarify Kai’s question, explains to the kids about the difference between weather and climate. She tells the kids “Weather is the day-to-day variation of the atmosphere’s condition locally.”, while “Climate is the year-by-year variation of the atmosphere’s condition over a large area.” She then corrects Kai’s about what Climate really is, saying “So, your daily condition this summer is what you call ‘WEATHER’. What we’re talking about is how conditions change over bigger areas and time periods – that’s CLIMATE.”
Panel 5: Ashley, feeling worried, says to the scientists, “I've been reading a lot about climate change.”

Panel 6: Ashley adds, “My science book states that climate change is going to make the oceans rise.”

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Panel 1: Kai gets excited about the rising of the ocean's water, and he abruptly says “COOL! Does that mean better surfing?”

Panel 2: The rest of the kids look at Kai a little annoyed by his question, and Catalina tells him “No DUMMY! That means beaches are going to get washed away.” She also says, “Also homes along the coast will flood.”

Panel 3: The lady scientist explains “Yes, sea levels are rising due to melting glaciers, where huge amounts of freshwater are locked up in the form of ice, but water also expands as it warms up and that also contributes to the rise.”

Panel 4: Ashley responds to the scientists, “I also heard that climate change is causing the ocean to get more acidic.” The lady scientist responds, “That is true because the ocean is a big giant CO2 sponge.”

Panel 5: The lady scientist continues explaining to the kids, “Normally, all those phytoplankton would love that CO2, but they also can't keep up.”

Panel 6: She finishes explaining, “That much carbon dioxide in the water causes animals that make shells like clams, oysters, crabs, and shrimp to lose or thin their shells.”

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Panel 1: Chad asks the scientists, “I love shrimp. Does that mean there won't be any more for us to eat?.”

Panel 2: The man scientist answers, “It would affect how many can survive and the babies will be most affected.” He also says to Chad, “I love clams and would hate to lose those from my favorite food list.”

Panel 3: Catalina, sadly, says “This sounds bad, what can we do to stop this?”

Panel 4: The lady scientist tells Catalina, “Well, we really need to reduce our use of fossil fuels and there are things you can do to help with that.”
Panel 5: Kai smiling says “I can ride my cruiser to the beach instead of asking my mom for a ride.” And Nick also adds “My dad just got an electric car! He can give us a ride.”

Panel 6: The man scientist, with a kind smile, clarifies Nick’s idea, saying “But remember a lot of your electricity used to power your home and charge your dad’s car comes from fossil fuel burning power plants.”

Panel 7: Chad says “That’s why my dad got solar panels. I thought it was cuz of my video-games.”

Panel 8: The lady scientist says with a laugh “HA HA! Actually, you’re right. There are many things that require fossil fuel. So just try to use them less.”

Panel 9: The couple of scientists, getting ready to leave and continue with their tour, say to the kids, “Well, it was nice meeting you. Good luck fishing!” The kids, while walking away, wave their hands to the scientists saying “We’re getting ready to leave as well. Nice meeting you!”

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Panel 1: A week later, the kids return to the beach, ready to catch some waves. One of them says “Finally, the beach is open.”

Panel 2: All the kids look excited holding their surfboards, while walking towards the beach. Ashley, with a big smile, says out loud “I can’t wait to get back in the water.”, while Kai and Catalina devour a burrito on their way to the beach.

Panel 3: Catalina with her mouth full of food, says “I think my gills are drying out!”

Panel 4: Suddenly, Cat steps on a plastic bottle, making a cracking noise. She says, “Huh?”

Panel 5: They come across a trash bin along the street. The trash is spread all over the ground. Catalina, upset, says “Eww, look at all that trash laying on the ground!”. Ashley, also annoyed by what she sees, says, “Why don’t people throw away their trash properly?”

Panel 6: Chad says “It’s not just people who are just leaving their trash on the beach.”

Panel 7: Chad adds “I’ve seen seagulls and squirrels pulling trash out of bins.” As he remembers a time when he was walking by the city, he says “They go around scrounging for food.”

Panel 8: When the kids see a man tossing a soda can in the middle of the street. Chad says “But you’re right. Too many people litter.”
Panel 1: Chad says to his friends “Let’s pick up some trash before we catch some waves”, while he crouches down to pick up a few plastic bags.

Panel 2: The kids start picking up some trash spread on the floor.

Panel 3: Kai tries pushing down with his foot the trash that is piled up in the city garbage container.

Panel 4: After picking up the trash around the container, Kai says “Can we go surfing now?” He adds “Let’s hope it stays like this.”

Panel 5: The kids are staring at the amount of trash that they were able to collect.

Panel 6: Finally at the beach, Kai shouts with excitement “Let’s catch some waves!!!!”

Panel 7: Catalina looks at Kai and says “KAI-! RACE YA!”

Panel 8: Catalina and Kai get ready to start racing to the shore.

Panel 9: While sitting on their surfboards in the surf lineup, Ashley, alarmed, says “Guys… Look at all this trash floating around… DISGUSTING!”

Panel 10: They all look around disgusted for the amount of trash floating in the water. Catalina says “You know most of this plastic often gets washed down storm drains and travels to beaches from miles away.” Kai, almost in shock watching a bottle floating next to him, says out loud “Wha- a bottle!?”

Panel 1: Ashley, worried, says “Yeah, like washed away with all that rain we just had. They can float around in the ocean for years!” She continues saying “Trash like old food and paper can easily break down or get eaten by animals. But it can take plastic many years to break down.” She adds “Because plastic floats, it ends up on our beaches. But most importantly, it can hurt marine life.”

Panel 2: Nick hears someone yelling at the distance, “AWW SCHUCKS! UGH!”

Panel 3: A lady, who was swimming close to the kids, calls the kids and yells “Hey kids! I hate these darn balloons! Every time I am in the water, I get tangled up in these darn balloon strings.”

Panel 4: The lady continues “These balloons are released and eventually sink into the ocean!”
Panel 5: The lady adds “Don’t people know that these balloons kill marine life?”, while she thinks about dolphins coming out of the water to breathe and getting entangled in the strings of the floating balloons.

Panel 6: Chad, annoyed by the situation, says “YEAH! I had one tangled up around my leg a few minutes ago!”

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Panel 1: The lady, holding an uninflated balloon that she found on the surface, says “Makes me so angry- I wish people would stop using these darn things.”

Panel 2: The lady stretches her hand towards Kai, saying “Can you take this?”

Panel 3: Kai, confused, replies to the old lady “Uhh… Sure? I guess…”

Panel 4: The lady, then, swims away saying, “Make sure to throw it in the trash! BYE.” Meanwhile, Kai holding the piece of balloon stares at the lady while she swims away.

Panel 5: The kids stare at each other confused by the lady’s attitude. Catalina says, “That was weird…” Nick also says out loud “Seriously!?” Kai confused tells the rest of the kids “Let’s go catch some waves! I’m starting to get hungry.”

Panel 6: Catalina, impressed by Kai’s answer, says “You JUST had a burrito. How can you possibly be hungry again?”

Panel 7: The kids, finally, continue to have fun in the ocean. Chad says out loud “WAVE IS COMING!.”

Panel 8: The kids stare excited at a huge wave just forming in front of them. Nick shouts “IT’S HUGE!.”, and Kai shouts “Woo!”

Panel 9: The five kids got to surf the big wave. They all look so excited.

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Panel 1: Kai, Catalina and Nick getting out of the water, while Ashley and Chad wait for them in the sand. While walking out of the water, Catalina asks Ashley and Chad, “That was awesome! You guys done?”. And Ashley, drying her hair with a towel, responds “Yeah, we just finished drying off.”

Panel 2: Suddenly, Ashley notices some hard little things stuck in her hair. She, surprised, says “Huh? Wow… check it out. Look at these little flecks of color.”
Panel 3: Catalina, impressed by the colors of the little shining things in Ashley’s hair, gets closer to her and asks “Let me see Ash. That’s weird- they’re all over your hair.”

Panel 4: Catalina holds Ashley’s hair and removes the little things. Catalina tells Ashley, “I THINK ALL THESE LITTLE FLECKS ARE TINY PIECES OF PLASTIC!”

Panel 5: A woman who was sitting nearby, listening to their conversation says out loud “I’m afraid you’re right darling.”

Panel 6: Kai looks at the lady with curiosity.

Panel 7: The woman tells the kids “All those big pieces of plastic floating around out there soak up the sun and get tumbled by waves.” She adds “Then they get broken down into smaller pieces.”

Panel 8: The woman continues explaining “Those tiny bits of plastic then sink to the bottom of the ocean floor. Then you can guess what happens…”

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Panel 1: While the woman thinks about reef fish living in the water column, she says “Those bits of plastic then get eaten by fish or wash up on our beach.” Learn more about plastic in the ocean.

Panel 2: The woman adds “Those little bits of plastic that most people don’t see are called ‘Micro-Plastic’.” The kids are paying close attention to her.

Panel 3: Kai, suddenly, says “Wait, so fish eat these microplastics? Does that kill them?.”

Panel 4: The woman replies to Kai, “It certainly can’t be good because they can’t digest them.”

Panel 5: She adds “Fishermen are finding all sorts of plastic in the guts of the fish they catch.”

Panel 6: The woman asks the kids “Do you like fish dear?.”

Panel 7: Kai, surprised by the woman’s obvious question, tells her “I LOVE FISH! IT’S ONE OF MY FAVORITE FOODS!.”

Panel 8: Kai adds “WELL, that and donuts.”
Panel 1: The woman tells Kai, “Well, you probably have eaten plastic too. Problem is we just don’t know how bad that is for most animals, including people”, referring to the micro-plastic that can get stored in the human's digestive system.

Panel 2: Ashley says to the woman “I always pick-up trash I find on the beach, but how could we possibly pick up all this plastic?”

Panel 3: The woman, while continuing laying on her beach chair with a book on her hands, responds to Ashley, “We can’t right now, but what we CAN do is reduce the amount of big plastic items that can get into the ocean.”

Panel 4: Catalina, surprised, tells the woman, “You know a lot about this stuff.”

Panel 5: The woman responds to Catalina, “Of course, I run local beach clean-up efforts, so I have seen literally tons of trash picked up off this very beach over the last 10 years.”

Panel 6: The woman also adds “We always need help. Would you kids like to help out?”

Panel 7: Ashley excited shouts “COUNT ME IN! I’ll make sure to bring these guys along with me!”

Panel 8: The rest of the kids smile shyly, while Chad says “Ya bet! We’ll definitely help!”

Panel 1: Kai also tells the woman “Thanks a lot for inviting us to the beach clean up!”. He pauses and then says to his friends “Guys I’m starving can we go eat now? All this talk about fish makes me want fish tacos!”

Panel 2: Catalina laughing responds to Kai “Haha! That sounds really good. But first, let’s pick up some trash.”

Panel 3: Catalina sees a trash container a few feet away from where they are, and says to her friends, “We can throw it in that trash bin over there.”

Panel 4: Chad holding a plastic bottle in his hand says “Yeah! But let’s keep the plastic bottles. My mom collects em’ and takes them to the recycling center for cash.”

Panel 5: Chad continues explaining that there are common items that can be recycled every day, such as soda cans, plastic water bottles, plastic milk cartons, newspapers, cereal boxes and old electronics.
Panel 6: Kai surprised looking at a plastic bottle he found over the sand says “**WHAT? You can get cash for these? We can totally save up and use the cash for new gear guys.**”

Panel 7: Catalina, who was tying a box full of trash that she and Ashley picked up already, says “**New leashes for our surfboards!**”

Panel 8: Kai and Chad walk along the beach holding a big box full of bottles in their arms. Kai says to Chad “**HAHA Look at all these babies! HELLOO new surf gear.**” Chad laughs and says, “**We can keep these at my house.**”

Panel 9: Later that day, the kids finally get to a beach food spot called The Shark Snack. One of the kids says “**OMG FINALLY! Fish tacos- Here I come!**”

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Panel 1: At the order line, the cashier lady greets Catalina, “**Hey Cat! What would you like to order today?**” Cat, with a big smile in her face, replies “**Hey Laurie! Just a burger please.**”

Panel 2: Chad, picking up a few packages of condiments from the condiments dispenser, asks his friends “**Hey guys! How many packets should I get?**”

Panel 3: Catalina, standing at the order stand, says to Chad “**Chad! Don’t use those! Use the ketchup bottles!**” Chad blushes and smiles rubbing his head with his right hand.

Panel 4: Meanwhile, Nick and Kai, from a dining table, laugh at Chad’s reaction. Kai says “**HAH!**”, and Nick says “**Yeah. No need to waste plastic when we can use those.**”

Panel 5: Ashley is waiting in the line order. She tells the cashier “**Hi, may I have the shark-bait fries please?**” The cashier responds with a smile “**Sure! They’ll be coming right up!**”

Panel 6: After taking Ashley’s order, the cashier tells her “**Here’s your lid and straw for your drink.**”

Panel 7: Ashley, says “**Actually, no thank you on those.**” She smiles and says, “**We don’t need more plastic to end up on the beach.**”

Panel 8: After listening to Ashley’s response to the cashier, Catalina excitedly shouts from the dining table, “**That’s my best friend right there! Way to go Ash!**”

Panel 9: Sitting at the dining area, Catalina hugs Kai and jokingly tells him “**Hey Kai- How do those plastic fish-tacos taste?**” He, with his mouth full of food, says “**HHMM?**”
Panel 10: Nick laughs out loud at his friends.

Panel 11: The kids laughing enjoy their meal. Chad continues joking and says “Yeah dude! How are they?” and Kai responds “HAHA! They taste great! But let’s make sure we aren’t putting more plastic in the ocean! So we can have plastic-free fish!”