BROOKLYN CONNECTIONS

THE NEW YORK AQUARIUM
PRIMARY SOURCE PACKET

Student Name

Adaptation

The New York Aquarium opened at Castle Clinton in Battery Park (Manhattan) in 1896. The New York Zoological Society took over the administrator of the facility at the city’s request in 1902; under the first director elected by the society, Charles H. Townsend, steps were taken to alleviate crowded conditions and maintained problems. Charles M. Breder, Jr., succeeded Townsend in 1937 and helped to establish the aquarium’s international reputation for scientific research.

Aided by its location, the aquarium flourished for many years and drew 7000 visitors a day until the parks commissioner, Robert Moses, temporarily closed it in 1941 because of construction of the Brooklyn-Battery Tunnel; ensuing plans to demolish Castle Clinton and close the aquarium permanently aroused such a strong protest that the castle was spared and the aquarium moved to the Bronx Zoo. Because of pressures to distribute funds for cultural attractions evenly among the boroughs, the Bronx was rejected as the site for a new aquarium in favor of Coney Island, where a new facility opened in 1957 near the boardwalk. An affiliated marine laboratory opened nearby in 1964 and was dedicated in 1967 as the Osborn Laboratories of Marine Sciences (named for Henry Fairfield Osborn), where research was conducted in fish genetics, fish pathology, aquaculture, and pharmacological applications of marine science. It was the first aquarium to breed and exhibit beluga whales, from 1961 to 2005, when the whales were transferred to a cooperative breeding program at the Georgia Aquarium.

On 12 June 2007, Akituusaq (Ah-Keh-Too-Sack), a 115-pound male Pacific walrus, was born, the first walrus born at the aquarium. In the early twenty-first century the aquariums 14-acre site is home to more than 8000 animals representing 350 species in outdoor and indoor habitats. The aquarium draws more than 750,000 visitors a year, mostly from Brooklyn, and is active in education, scientific research, and conservation. In 2012, Hurricane Sandy badly damaged the aquarium. A small group of staff managed to
save roughly 80% of the collection while 20% others died from water contamination and other storm related complications.

1. Using information from both DOCUMENT 1A and DOCUMENT 1B, describe the New York Aquarium building.

2. Which borough was the original New York Aquarium located?

3. Why do you think New York City decided to turn Castle Clinton into the New York Aquarium? Try to use evidence from the documents in your answer.

4. Write two questions you have about the old aquarium at Castle Clinton:

   a.

   b.

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Aquarium Asks for Fishes For Its Exhibition Tanks from Brooklyn Park Lakes

Park Commissioner Edward T. O’Loughlin has been requested by C. H. Townsend, director of the New York Aquarium, to allow employees of that institution to “take fishes with the seine” from the lakes of Prospect Park and Sunset Park for specimens to be added to the exhibitions at the Aquarium. The Commissioner is replying that he will investigate the number and kinds of fish in the park lakes and then decide how many he could allow to be taken without endangering the supply. It is the first time such a request has been made. Commissioner O’Loughlin today said: “The Aquarium is a great public institution, and one that gives much pleasure to the public. It will be very gratifying for Brooklyn to be able to add to the exhibition in that institution if we can do so without depleting too seriously the fish life in our lakes.”

TURTLES FROM THE AMazon.

Two Are Received at the New York Aquarium.

The Aquarium received today two specimens of the Matamata (Chelys ambiata) from the Amazon River.

This is one of the oddest fresh water turtle in the world with a remarkably broad and flattened head and with a neck which folds sideways when drawn under the front edge of the shell. The nose is a long tubular snout, and the very small eyes are placed forward. The head and neck are covered with peculiar fleshy filaments. The species has seldom been exhibited alive in this country. They have been placed in the pool containing the giant fresh-water turtles received from the Amazon River two months ago. Neither of these Amazon specimens have ever been shown at the Aquarium before.

GLOSSARY WORD: Tubular

1. According to DOCUMENT 2A, what parks did C. H. Townsend, director of the New York Aquarium, ask for fish from?

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2. Why do you think the aquarium wanted fish from local lakes when people could just go visit them in the lakes they lived in?

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3. Why do you think Park Commissioner Edward T. O'Loughlin was worried about “depleting the fish life in our lakes?” Why are fish important in lakes?

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4. In your own words, describe the turtle discussed in DOCUMENT 2B.

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5. The turtles discussed in DOCUMENT 2B were taken from the wild. How do you feel about removing animals from the wild to be displayed in aquariums and zoos?

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Aquarium Loses 400 Fish
As Strange Microbe Attacks

The New York Aquarium's stock of tropical fish was nearly wiped out, it was learned today, by a mysterious microbe that attacked the eyes of the specimens and killed many of them off in five or six days. The Aquarium lost some 400 of its fish before the epidemic was halted by the use of New York Harbor water in place of the pure sea water previously employed.

C. M. Breder, research associate at the Aquarium, said today that, as a result, "our marine collection is far from what it should be at this time of the year."

The hitherto unknown piscatorial disease was discovered last July when Aquarium representatives made a trip to Key West and brought back fish some of which had swollen eyes. These presently became sightless and died. Mr. Breder returned to Florida, investigated and found many fish affected by the disease. A bacteriologist was called in and isolated the bacillus, which had a way of getting into the liquid part of the eyeball.

In some way the bacillus had got into the water of the Aquarium tanks and the situation seemed desperate until the water was changed. Since then fresh sea water has been brought in and the situation is under control.

GLOSSARY WORDS: Microbe, Hitherto, Piscatorial, Bacillus

Document 3 - “Aquarium Loses 400 Fish as Strange Microbe Attacks.” Brooklyn Daily Eagle, 7 Jan 1929.
1. According to DOCUMENT 3, what part of the fish did the microbe attack?

2. How did the microbe get inside the fish tank?

3. After reading the article, why might it be dangerous to take animals from the wild and introduce them to captivity?

4. How did the staff at the aquarium fix the disease problem in the water?

Document 3 - “Aquarium Loses 400 Fish as Strange Microbe Attacks.” Brooklyn Daily Eagle, 7 Jan 1929.
Due to the proposed Relocation of the Aquarium this Open Letter is addressed to:

HIS HONOR, MAYOR FIORELLO H. LA GUARDIA
PARK COMMISSIONER ROBERT MOSES
MR. FAIRCHILD OSBORN, President of the Zoological Society of New York

Gentlemen:

This is an appeal to consider Coney Island for the new Aquarium site. Ideal as the present Aquarium location may be, the declaration that its removal is necessary in order to make way for other capital improvements, gives rise to the question of its future site. Where can a more suitable location from every standpoint be found, than the City-owned property adjacent to the City-owned boardwalk, at Coney Island?

At Coney Island, the Aquarium would be a unique exhibit—one for which the City could charge a small fee of admittance if so desired.

Coney Island is in the most thickly populated borough (Brooklyn—2,660,479—1940 U.S. Census), and is easy of access by subway, boat or car to all the other boroughs of the City.

"Is the location suitable?" Of course it is. The Atlantic Ocean and fresh sea air are Coney Island's natural attractions. Mayor LaGuardia and Commissioner Moses have recognized this fact by adding 1,400 feet to the boardwalk, this year, making it a seaside promenade of 14,000 feet. In addition to this the beach has been improved by restoring white sand in place of red and has been extended to make room for "Coney Island's millions" for whom there has been literally only standing room for years. Where then, could a more suitable location be found than this perfect spot, right on the Atlantic Ocean, where a larger audience would welcome this educational and beautiful attraction?

If Coney Island is the selected location, it will undoubtedly fit in without further change with the ideas of the City Planning Committee for the best land use of New York City property.

Coney Island received over twelve million passengers by B. M. T. trains alone in the year ending June 1940. Thousands more came by bus, by boat, by automobile. The new Belt Highway brings visitors to Coney Island all year round. The Aquarium at Coney Island could be one of the City's most delightful features. "The Play Ground of the World", means fun and happiness to millions.

Even during the winter season the Aquarium would be a popular attraction. As Coney Island's shutters go up on the amusement area, the scene completely changes, but the interest does not lessen. Fishermen in assorted costumes, from the delicate to most ingeniously arranged for warmth and waterproofing, appear in great numbers, for the Coney Island Pier and the stone jetties are choice fishing locations in the Fall, Winter and Spring.

How fine, then, to have the Aquarium at Coney Island, where students of the piscatorial art, could study the behavior of fish, by viewing fine specimen inside the Aquarium.

Then, too, students from the public schools, Brooklyn College, Boy and Girl Scouts and many children's outings come to Coney Island to whom the Aquarium would be a place of instruction and delight.

Because of the natural beauty of Coney Island's location, it merits the consideration of those who must look ahead in planning the City's future development. Unlike any of the zoological parks, where more dramatic exhibits of animals of unique and strange kinds, would make the addition of the Aquarium "just one more thing to see if we have time", at Coney Island "THE AQUARIUM" would be a chief attraction. Instead of saying "Let's go for a walk on the Boardwalk", people would say "Let's go to the Boardwalk and visit the Aquarium."

Another important thought—and one that is a serious problem in large zoos, (as it was at the World's Fair, too) where the distance to be covered is great and people are exhausted by the very thought of all the walking they have to do, Coney Island is compactly and neatly arranged and any attraction can be reached by train, trolley, bus or automobile.

And lastly, if the fish were asked where they would like to be, isn't it possible they might say "We want to go where the millions go— to Coney Island." Besides the ocean is our natural home and if we cannot be in it, at least at Coney Island we'll enjoy its soft salt breezes.

From the standpoint of the welfare of the fish and the enjoyment of the public, the selection of Coney Island for the new site for the Aquarium would have universal approval.

MARY E. DILLON
HELEN S. STEERS
(Coney Island)

May 6, 1941.

GLOSSARY WORD: Capital
1. To whom is DOCUMENT 4 addressed? Why do you think the authors sent this open letter to these individuals?

2. The authors claim that Coney Island is more than suitable for the new aquarium. What evidence do they give to support this claim?

3. What is the “serious problem with large zoos?”

4. Given the argument made, do you think Coney Island is a suitable location for the new aquarium? Why or why not?

CAPTION: "Penguins for Brooklyn – An Abraham & Straus check for $2,500 is presented by Robert E. Blum and Walter Rothschild [holding check], vice president-secretary and president, respectively, of the Fulton Street department store, to Fairfield Osborn [holding penguin], president of the New York Zoological Garden, in payment for a colony of penguins which will take up residence in this borough on completion of the new Aquarium at Coney Island.”
1. Who are the men in DOCUMENT 5 and what are they doing?

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2. Why did the men choose to pose with a penguin?

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3. Who was this photo meant to appeal to? How do you know?

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4. What reaction do you think people might have had to this photo? Explain.

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Document 6A (Top) - Coney Island Aquarium. 1956. Brooklyn Collection, Brooklyn Public Library.
Document 6B (Bottom) - Model of proposed Aquarium. 1956. Brooklyn Collection, Brooklyn Public Library.
1. Both DOCUMENT 6A and DOCUMENT 6B are images of possible designs for the new aquarium. Describe the building in DOCUMENT 6A:

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2. Describe the building in DOCUMENT 6B:

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3. Which design do you prefer and why (use details from the images to support your reasoning)?

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4. Neither rendering was chosen as the final design. What are some issues that might have persuaded the city to go with another design?

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CITY WELCOMES
CONY AQUARIUM

Mayor and Other High Aides
Speak at Dedication Rites
for $1,500,000 Edifice

PENGUIN CUTS RIBBON

Moses Sees a New Life for
Resort—Marine Showplace
Opens to Public Today

GLOSSARY WORD: Incomparable

By MURRAY SCHUMACH

Science and sight-seeing became partners under the same roof in Brooklyn yesterday when the new Aquarium at Coney Island was dedicated.

The significance of the $1,500,000 marine showplace was stressed in short speeches by Mayor Wagner, John Cashmore, Brooklyn's Borough President; Robert Moses, Commissioner of Parks, and Fairfield Osborn, president of the New York Zoological Society.

The speakers expressed the hope that there would be no unnecessary delays in greatly expanding the new Aquarium into an "incomparable" $10,000,000 center.

In behalf of the marine life that inhabits the Aquarium's indoor tanks and outdoor pools, a penguin, assisted by Mr. Osborn, snapped a ribbon to make the dedication official.

The Aquarium, at the Boardwalk near West Eighth Street, will be opened to the public today. The hours, during the summer, will be from 10 A. M. to 10 P. M. During other months, the Aquarium will be open from 10 A. M. to 5 P. M. Admission is 90 cents for adults and 45 cents for children.
Land Donated by City

The building is the successor to the Aquarium at the Battery, which was closed in 1941 to make way for the Battery-Brooklyn Tunnel. It was constructed by the city and the New York Zoological Society. The city donated the land. Expansion costs will be shared by the city and the New York Zoological Society.

The ceremony was staged in an atmosphere colored with the carnival spirit. Before the speeches, more than 1,000 persons gathered for lunch under striped tents as guests of the New York Zoological Society.

Throughout the dedication the thumping tunes of a near-by carousel were heard, and occasionally piercing shrieks rent the air as a roller coaster plunged.

The association of an aquarium with Coney Island is not new, Mayor Wagner pointed out; there was one there in the latter part of the last century.

Moreover, the need for an aquarium was proved by the fact that from 1903, when the Battery institution was taken over by the Zoological Society, until it closed, 86,000,000 persons visited the exhibits.

Building Is 216 Feet Long

Construction of the new aquarium, which is 216 feet long and 120 feet wide, was delayed by World War II and the Korean War.

Commissioner Moses said he hoped the Aquarium would make Coney Island overcome its “bad name.” The Aquarium, he predicted, will give to Coney Island “just the remaining lift it needs, the fine distinction it deserves, the supreme attraction to visitors” that will transform the area into a “new Coney for healthful outdoor recreation and a year-round community, an ocean resort in the best American tradition.”

When the ribbon broke, the crowd entered the Aquarium, spreading along its two exhibit floors and wandering to the basement floor, which contains pumping apparatus for the tanks and offices for the staff that works under Christopher W. Coates, curator.

In true Coney Island tradition, the Aquarium has its own barkers: the sea mammals. Their outdoor pool, containing five sea lions, two harbor seals, two elephant seals and Olaf, the only walrus in captivity in North America, was the prime attraction. It seemed likely that they would become what Surf Avenue spielers call “the best show on the island.”

GLOSSARY WORDS: Atmosphere, Apparatus, Barker

Document 7 - Schumach, Murry. “City Welcomes Coney Aquarium.”
1. Why was the original New York Aquarium closed?

2. DOCUMENT 4, the open letter stating the aquarium should be built in Coney Island, was written in 1941. DOCUMENT 7 was written in 1957. Why did the aquarium take so long to build? Support your answer with a specific quote from DOCUMENT 7.

3. What kind of sea mammals lived at the aquarium in 1957?

4. Why do you think they chose a penguin to cut the ribbon for the new aquarium?

Aquarium Here Hopes to Catch a Narwhale in Arctic

The New York Aquarium has dispatched a team of scientists to lonely Cornwallis Island, in Canada's Northwest Territories above the Arctic Circle, to capture a baby narwhale, a mammal that for more than four centuries has helped to foster the legend of the unicorn.

The team will attempt to bring the animal to the aquarium in Coney Island.

The aquarium was notified of the possible availability of the relatively rare creature on Thursday by a bush pilot who had spotted the baby whale after Eskimos killed its mother for food.

The aquarium team, consisting of a veterinarian, an aquatic animals expert, a photographer and the aquarium's curator, Robert Morris, arrived on Cornwallis Island by plane yesterday and reported to aquarium headquarters here that they hoped to reach the narwhale today.

The team will try to feed the young whale on a special milk formula and to give medical help if necessary.

Narwhales are believed to have contributed to the unicorn legend, which stems from Biblical times, because of the long, spiral tusk that protrudes from the left front of the narwhale's head. In the fifteen-hundreds, whalers and explorers sometimes brought the tusks back to England.

Rarely seen by anyone except Eskimos, the animal is related to the white, or beluga, whale. According to New York Aquarium officials, it has never been seen in captivity.

Dr. Ross F. Nigrelli, director of the aquarium, said yesterday that the narwhale would be "a tremendous acquisition" for the institution. He added, "We are all very excited about the possibility that we may be able to exhibit such an unusual sea mammal."

He said the aquarium was already negotiating with the Canadian Government for the shipment of the animal if it could be captured and transported.
1. What mythical creature did the narwhale inspire? Why do you think the narwhale inspired that creature?

2. Why did Eskimos (Inuit) kill the narwhale’s mother?

3. Why do you think New York Aquarium staff thought it so important to bring narwhale to the New York Aquarium?

4. Do you think that the baby narwhale should have been left in the wild? Why or why not?

Some of the ocean’s most beautiful secrets are now on display at the New York Aquarium in Coney Island. The Aquarium recently opened two exhibits featuring 16 tanks of blue, yellow, pink and orange coral that is being grown right at the Surf Ave. facility. "Growing corals [allows us to] ... preserve these fragile ecosystems while educating the public about coral reefs in the wild," said WCS Vice President and New York Aquarium director Jon Forrest Dohlin.

Due to disturbances like climate change and unchecked coastal development nearly one-third of the world’s coral reefs have been lost. Some estimates predict corals will be extinct by 2050. So, the aquarium is growing its own.

With names like “xenia” and “pink bird’s nest,” the aquarium lab grows between 25-30 different species which produce hundreds of colorful hard and soft corals. The slow-forming corals, which are grown from tiny fragments, may take two to four years to mature.

Aquarium staff start the growing process by creating their own filtered water, sometimes adding just the right mix of salt and calcium to the tanks. Visitors can see the corals in the aquarium’s Conservation Hall and Glover’s Reef exhibits.

1. Why did the New York Aquarium decide to start growing coral?

2. According to DOCUMENT 9, coral's habitat needs salt and calcium. Infer where coral must grow in the wild if requires these elements:

3. Describe the laboratory in the large image that corresponds with the article.

4. Why do you think coral are so important? Use evidence from the photos and article to support your claim.

1. DOCUMENT 10 includes images of the inside of the New York Aquarium during superstorm Sandy. Describe what you see.

2. What threat do you think outside seawater poses to fish who are used to living in water?

3. Superstorm Sandy also knocked out the facility’s electricity. What role do you think electricity plays in keeping marine life safe beyond merely offering light (hint: think about aquariums you’ve seen in person)?

Coney Island’s New York Aquarium Breaks Ground on New $157M Shark Exhibit on Friday

The massive 57,000-square-foot "Ocean Wonders: Sharks!" exhibit will feature a coral reef tunnel that will give guests a 360-degree-view of the new plethora of ocean life when it officially opens to the public in 2016.

Coney Island is set for a shark attack.

After years of planning, New York Aquarium is finally set to break ground on a jaw-dropping new shark exhibit Friday.

The massive 57,000-square-foot "Ocean Wonders: Sharks!" exhibit will feature a coral reef tunnel that will give guests a 360-degree-view of a plethora of ocean life when it officially opens to the public in 2016.

“You will be surrounded on all sides by not only sharks, but by schools of bright colored bony fish and the sort of beauty of the tropics that we all associate with [scuba] diving,” said Jon Forrest Dohlin, aquarium director and vice president of the Wildlife Conservation Society, which runs the aquarium.

The $157-million exhibit will feature more than 100 species of marine animals, both local and from around the world, including sharks, rays, sea turtles, thousands of schooling fish and other crustaceans. More than 45 sharks, including sand tigers, nurse sharks, blacktip reef sharks and bamboo sharks will swim around inside the three main 500,000-gallon tanks.

“It’s going to be a tremendous expansion of our collection,” said Dohlin. “I think people will be amazed, exhilarated and inspired.” The three-story facility will also boast a roof-deck overlooking the ocean, classroom space and a cafe. Officials were supposed to break ground on the exhibit a year ago, but Hurricane Sandy devastated the aging aquarium and delayed the project, which has been in the works for several years.

Only about half of the 14-acre aquarium has been open since May of last year. The “Explore the Shore,” “Alien Stingers,” and parts of the “Sea Cliffs” exhibits are all still recovering from the superstorm. “They suffered extensive damage in the storm so the renovation of those is going to take the next couple of years,” said Dohlin. Aquarium trustees plan to reopen the damaged parts of the Coney Island institution in conjunction with the grand opening of the new shark exhibit in 2016.

“It will have new exhibits and certainly updated and renovated exhibits throughout the entire facility,” said Dohlin. Elected officials and aquarium executives will hold a groundbreaking ceremony on Friday.

1. Describe the new “Ocean Wonders: Sharks!” facility, depicted in DOCUMENT 11:

2. What caused the building of the new facility to be delayed?

3. What new exhibits will the facility include?

4. Sketch what you think the coral reef tunnel will look like below:

1. Look closely at the map. What building does the coral live in? How can you tell?

2. Draw an X next to where the sharks currently live and two X’s next to where they are moving.

3. What is currently missing from this map?

4. Thinking about everything you’ve learned about the New York Aquarium, what would you change about, add or take away from the aquarium if you were in charge?
GLOSSARY

**Acquisition**: the act of getting something

**Affiliate**: to be associated with something

**Alleviate**: to ease

**Apparatus**: machine that does a certain task

**Aquaculture**: growing living things (plants, fish) in water

**Atmosphere**: the space/air around something

**Bacillus**: bacteria

**Barker**: someone who attracts people to go on rides or to shows by yelling

**Calcium**: a mineral used to create coral exoskeletons

**Capital**: money

**Caption**: the explanation or description accompanying a pictorial illustration

**Conservation**: an effort to save the environment and its inhabitants

**Deplete**: to take all of something

**Devastate**: to destroy

**Ecosystem**: a habitat where many different living things live together

**Ensue**: to come later

**Extinct**: when all of a species has been killed or has died

**Genetics**: a branch of science that deals with genes

**Habitat**: an animal’s home

**Hitherto**: up to this time

**Incomparable**: when nothing can compare

**Microbe**: an organism or bacteria that you need a microscope to see

**Pathology**: the study of disease

**Pharmacological Applications**: using something as medicine

**Piscatorial**: concerning fish

**Plethora**: an abundance, a lot

**Specimen**: something to be studied

**Tubular**: like a tube