

Middle School Activities Grades 6-8







Introduction

Thanks for your interest in this interdisciplinary project designed for middle school students. It's simple, rewarding, and a chance for your students to win a design competition! In this packet you will find suggested activities and handouts to help prepare your students' contest entry.

In order to raise awareness about the importance of walking in New York, our suggested activities highlight the following three key categories:



Health: There are major health benefits to walking, from a healthy heart, to weight loss—and more.



Environmental Sustainability: With zero carbon emissions, walking is a great way to go green.



Safety: We can do our part to be safe when we walk by staying alert and making ourselves visible. We can also ask drivers to be alert and slow down to make walking safer!

It's up to you to decide which activity or activities to do with your students. Your studies can examine any of the many aspects of walking that are relevant to your contest entry and correspond to the contest guidelines.

Handouts

- (1) Neighborhood Walk
- (2) The Carbon Footprint of a Commute
- (3) School Zone Behaviors
- (4) How Many Steps?
- (5) NYC Walking Facts
- (6) PSA Planning Sheet
- (7) Streets Survey
- (8) Redesign Your Street
- (9) Outline Your Letter

About We're Walking Here

New York City is a city of walkers. The majority of young New Yorkers walk to school, to transit, and around their city each day. We want to take the opportunity this October, the month of International Walk to School Day, to celebrate this achievement – and to encourage students and their families to walk more often.

Safe Routes to School (SRtS) is a national program that was born out of the need to protect schoolaged children as they walk or bike to school. Here in New York City, we at NYCDOT's Division of Safety Education and Outreach work directly with schools to educate children to be skilled pedestrians and cyclists. Additionally, NYCDOT is working to make streets safer by slowing traffic around schools and raising awareness about the importance of safe driving and biking behavior.







Classroom Activities

Neighborhood Walk

Categories: Safety

Subjects: Social Studies, Science

Time: 30-45 minutes

Handout: (1) Neighborhood Walk

Lead the students in a discussion about the area around their school and the way the streets are designed. You can use the "Neighborhood Walk" handout that we've included. Distribute copies to each student. Take a walk with your students on the block directly around the school or a few blocks that are close by. Have the students use the handout to write down observations for each category, determining what kinds of behaviors you see that are dangerous. When you return from your walk, discuss how these observations and notes can inform your class contest entry. Were you surprised by what you saw? Why is it especially dangerous when drivers don't pay attention? If a lot of kids walk to your school, but the traffic seems to be going too fast, what behavior changes should be made to encourage walking in the area? If people are making dangerous turns at an intersection, what could your students teach drivers to make them safer?

How We Commute

Categories: Health, Safety, Environment Subjects: Social Studies, ELA, Math

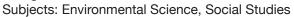
Time: 20-30 minutes

Have the students list the various modes of transportation available in the city. Encourage them to think outside the box and include things like the ferry, skateboarding, scootering, etc. Now take a poll of the students. Ask them to raise their hands and identify the way they got to school this morning.

Mark these numbers down on the board. Ask students to express them as a fraction or percentage (e.g. two-thirds of us walked today). Figure out how many people walk each day (you can include those who walk to and from transit for your numbers here). Then have a discussion about ways we can get around that are better for ourselves and for our city. What are the healthiest, greenest, and most fun ways to get to school? What could we do to improve our commutes? How could we share this information with grown-ups through our contest entry?

Personal Carbon Footprint

Categories: Environment



Time: 20-30 minutes

Handout: (2) The Carbon Footprint of a Commute

Ask the class to define the term "carbon footprint." If you want to give them an official definition, it's a "measure of the impact human activities have on the environment in terms of the amount of greenhouse gases produced, measured in units of carbon dioxide." In other words, your personal carbon footprint is how much pollution you put in the air from your behavior in a day. For the purposes of this lesson, we will concentrate only on the carbon footprint of a commute to and from school. Use "The Carbon Footprint of a Commute" handout to go over the different amounts of pollution produced by the different modes of transportation. Why is walking so great for the environment?







School Zone Behaviors



Categories: Safety Subjects: Social Studies Time: 20-30 minutes

Handout: (3) School Zone Behaviors

Distribute the "School Zone Behaviors" handout. Have students work with partners to list examples of ways they have seen drivers, pedestrians, and cyclists being unsafe. Come back together for a class discussion. Be sure to highlight the different ways in which dangerous car driving behaviors (distraction, fast turns, speeding) can have serious consequences for both pedestrians and cyclists. Have a discussion about why it is important for the streets to be safe for pedestrians given the percentage of walkers and their vulnerability. If they believe that people are generally driving dangerously in the area, encourage them to think about what particular changes need to be made to solve this problem. Do we need better education, engineering or enforcement? Do we need all three? If so, how would we go about doing any of these things? And in the meantime, what could we do to protect ourselves?

Safe/Unsafe Behaviors Skits



Categories: Safety

Subjects: ELA, Drama, Social Studies

Time: 20-30 minutes

Students work with groups to put together skits demonstrating safe and unsafe behaviors of pedestrians, cyclists and drivers. Focus on the distractions that keep people from focusing on others trying to get around (e.g. talking on cellphone, texting, listening to music, etc). This is particularly important for middle school youth to think about. Rearrange tables, chairs, and desks to create a "street" that pedestrians must cross. Have

students take some time to prepare their skits. First do skits with students walking distractedly across the street, and drivers and/or cyclists who are also distracted. Have a discussion after the first skit to talk about how they could be safer pedestrians. What were people doing wrong? Then have students redo the skit taking into account suggestions from their peers, so they are getting around safely.

P.E. Class Walking Day



Categories: Health, Safety Subjects: P.E., Health

Handout: (4) How Many Steps?

(5) NYC Walking Facts Time: 45 minutes-1 hour

Incorporate a walking theme into Physical Education class. Take a look at the "How Many Steps" handout and go for a walk around the school, counting steps with a pedometer or simply by counting. Play walking songs and have a dance party before or after a long walk (we recommend Beyonce's "Move Your Body" YouTube dance workout). Ask the students to share stories about walking for exercise. Talk about ways we can be safe when we walk, and why walking counts as a key form of exercise. You can also use our "NYC Walking Facts" handout to further connect to the information.







Public Service Announcements



Categories: Health, Safety, Environment

Subjects: ELA, Social Studies

Time: 1.5 hours

Handout: (6) PSA Planning Sheet

Create posters or flyers promoting walking and safe driving. As a class, you can define what is a Public Service Announcement (PSA) and think of some examples of PSA campaigns that have been effective (around smoking or obesity, for example). You can explain to the class that we can make our own PSAs to advocate for change in our communities. Students can work alone, with partners, or in groups to make their PSAs. (We've included a planning sheet you can use). They can present these as posters or flyers to their classmates, the rest of the school, or leaders in their community. Put up posters at the front entrance for the month of October, or hand out flyers at a school-wide event.

Walkability Maps



Categories: Health, Safety, Environment Subjects: Geography, Urban Planning

Time: 1.5 hours



Create "walkability" maps by surveying the area around the school. As a class, create a set of criteria such as how clear are the street markings, how safe are the street crossings, are there places to sit and rest along the route, etc. Then go outside to conduct research, and then split into groups to create the maps. You can use NYC Oasis [www.oasisnyc.net/map.aspx] to find a good aerial view

of your school zone. Have a discussion about the areas where you can walk more safely and easily than others. Why is it important to be able to walk to get around? Use these maps as a jumping off point for your design ideas.

How Many Steps?



Categories: Health, Safety Subjects: Math, Health, P.E.

Time: 45 minutes



Take a look at the "How Many Steps?" handout. Estimate how many steps it will take to go for a walk around your school. Then, go for a walk around your school while counting your steps. Use math calculations to estimate how many steps the students take in a day. Use the "NYC Walking Facts" handout to note the health benefits of walking. You can extend the project to keep logs of walking time or steps; calculate speeds and distances, and determine individual and group averages. For a bigger challenge, encourage the students to walk 10,000 steps each day for a set period of time. This is the amount of steps recommended by the President's Challenge.

*Please note, this activity can also be done with pedometers.







Survey Project



Categories: Safety

Subjects: Social Studies, Math

Time: 45 minutes

Handout: (7) Survey Sheet

Pass out the survey sheet. Ask the students to think through the answers to the seven questions in the survey and fill out their answers as honestly as possible. Have a discussion about their answers. If there's time, calculate some percentages in table groups and have them make pie charts.

Oral History Project



Categories: Health, Safety, Environment Subjects: History, Social Studies

Time: 1 hour



Visit a local senior center or retirement community and interview older adults about how streets in the area used to be when they were children or young adults. How did they get around their city? Did they do a lot of walking? What were the transit options like? Have the streets changed since? Do they feel safe in the area? Why or why not? What are their recommendations for making the streets safer for seniors to walk today?

Photography Project



Categories: Health, Safety, Environment Subjects: Geography, Social Sciences, Art



Time: 1.5 hours



Students should photograph important things that are beautiful, interesting, and/or dangerous about the streets around the school. Take a look at the pictures. Anything they would like to change? What can you do about the streets? Have students work with groups to draw their ideas for improved streets by layering transparent vellum/tracing paper over print outs of these photographs. They should also create a key to their designs and write up accompanying descriptions. Or if time is limited, just have them write up verbal descriptions of proposed changes. Put up these photos and proposed changes in an exhibit somewhere in the school or a nearby community center.

Video Conference



Categories: Health, Safety, Environment Subjects: Social Studies

Time: 45 minutes



Video conference with another classroom in the city, preferably from another borough, and discuss walking in that area. How do most students get to that school each day? What are streets like in the area? How is it similar or different from how students get to your school?

Alternatively, find a school in a suburban or rural location, or another city, to discuss the differences between NYC and this place.







Human Barometer

Categories: Health, Safety, Environment Subjects: Social Studies, Geography,

Government

Time: 30 - 45 minutes





Do a "human barometer" activity about walking and safety. Have students stand up and clear away desks. Establish a corner for AGREE, one for DISAGREE and a point in the center for MIXED. Then read each statement to the class. After each question, have students choose whether they AGREE, DISAGREE, or are in the middle, in which case they are MIXED. They should walk towards the side of the class with which they most identify. Here are suggested statements. We recommend that you select three from these five in order to build in enough time for a full class conversation about the issue:

- My street is safe enough to walk there.
- Children should be able to walk to school by themselves.
- When a pedestrian is hit by a car, it's not an accident - someone is to blame.
- I trust drivers when walking across the street.
- Walking safely in New York is everyone's right.

Once the students have had a conversation about each question, have a wrap up discussion for a few minutes. Ask the students if they have ever thought about these issues before.

Redesign Your Street

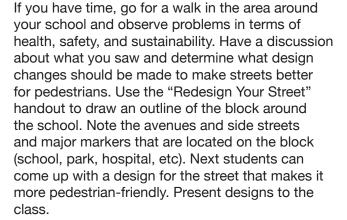
Categories: Health, Safety, Environment Subjects: Social Studies, Art

Time: 1.5 hours

Handout: (8) Redesign Your Street







Letter Writing



Time: 45 minutes-1.5 hours Handout: (9) Outline Your Letter,

(1) Neighborhood Walk



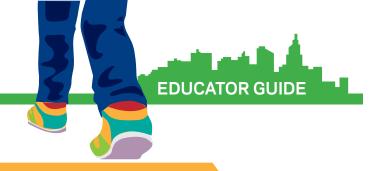




Identify ways in which streets could be improved to make for safer walking. Discuss letter writing as a form of political action, and why it is a good way to make your voice heard. First you need to collect some information about your streets to figure out what is wrong (you can brainstorm in groups using the "Neighborhood Walk" handout). We've included a worksheet, "Outline Your Letter," if you want to take more time to plan out your letters in advance. Identify the appropriate official to send letters. Find your school zone's elected officials by typing in the zip code at the following website: www.congress. org/congressorg/dbg/officials/.







School-wide Activities

Walking Banner

Categories: Health, Safety, Environment Subjects: Art, Health, Social Studies



School-wide Walk for a Cause

Organize a school-wide fundraiser walk for a cause,

to raise money for an issue related to walking, such

as an environmental, health, or safety organization. Greet walkers with stickers, gifts and refreshments.

Public officials can be invited to say a few words.

Categories: Health, Safety, Environment Subjects: Art, Health, Social Studies







Have a discussion about the social, health, environmental, and cost benefits of walking to get around. Think about what kind of images portray these themes. Make a big banner about walking in September, and put up the banner at the front of the school for the month of October to celebrate walking.

Wall Chart

Categories: Health, Safety, Environment Subjects: Art, Health, Social Studies









Categories: Health, Safety, Environment Subjects: Art, Health, Social Studies, Science, Math



Create a competition to log miles that students have accumulated via walking, transit, and biking. Classes can compete against each other or different grades, or the school could work as a team to accumulate green miles towards a common goal, such as "Getting To Antarctica."

Have an assembly as a culmination of this school-

wide project to celebrate sustainable miles logged.

For a week in October, put up a chart in the front of the school with all the different modes of getting around (walking, biking, transit, taxi, ferry, other) and have students tick a mark on the chart for the way they got to school that day. Encourage classrooms to discuss the numbers. Why do so many of us walk and take transit in New York City?

Download the School-wide Activity worksheets at http://www.nyc.gov/html/dot/html/safety/ walkingschools.shtml







Worksheets Grades 6-8





School:	Class:
Name:	Date:

(1) Neighborhood Walk

Walk around your neighborhood with your team for twenty minutes. Look at the behaviors of pedestrians, cyclists, and drivers, and note how many people you see doing each one of the dangerous behaviors. What should they be doing differently?

CATEGORY	Put one tick mark for each person you see	How many people do you see?	What should they be doing differently?
DISTRACTED WALKING (using ipod, talking on cell phone, talking to friends)	AND THE REPORT OF THE PERSON O		
SPEEDING CARS (cars that speed through yellow lights, are going more than 30mph)			
WALKING AGAINST TRAFFIC SIGNAL (crossing the street during a "don't walk" signal)			
DISTRACTED DRIVERS			
NOT "BIKING SMART (going the wrong way, adu on sidewalks, no helmet) GRADES 6-8: MIDDLE SCHO	ilts		NEW YORK CITY Safety Education & Outreach



School:	Class:

Name: Date:

(2) The Carbon Footprint of a Commute

Let's say Maria lives in one borough and goes to school in another borough 5 miles away. That means her total commute to school is 10 miles per day.

If she:

rode in an SUV, her 10-mile commute would generate 16 pounds of carbon dioxide.

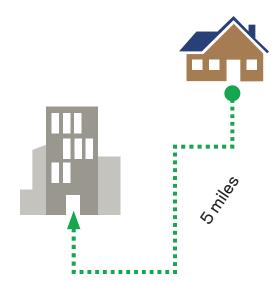
rode in an average car, her drive would release 12 pounds of carbon dioxide.

rode in a hybrid car, this commute would emit 4 pounds of carbon dioxide each day.

took the bus, she would create 5 pounds of carbon dioxide.

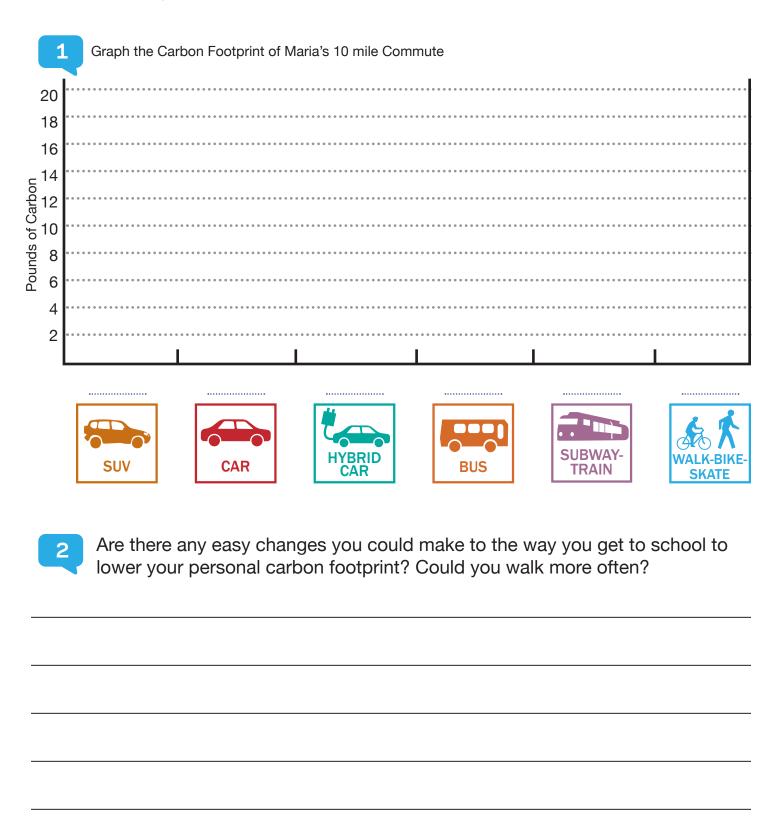
rode the train or subway she would put 2.5 pounds of carbon dioxide into the atmosphere.

walked, biked, or skated, Maria's commute would create no carbon dioxide beyond her normal respiratory output.





(2) The Carbon Footprint of a Commute (continued)





School:	Class:
Name:	Date:

(3) School Zone Behaviors

Brainstorm with a partner and list the different unsafe behaviors you see car drivers, cyclists, and pedestrians do around your school every day.

DRIVERS:
What could they do differently?

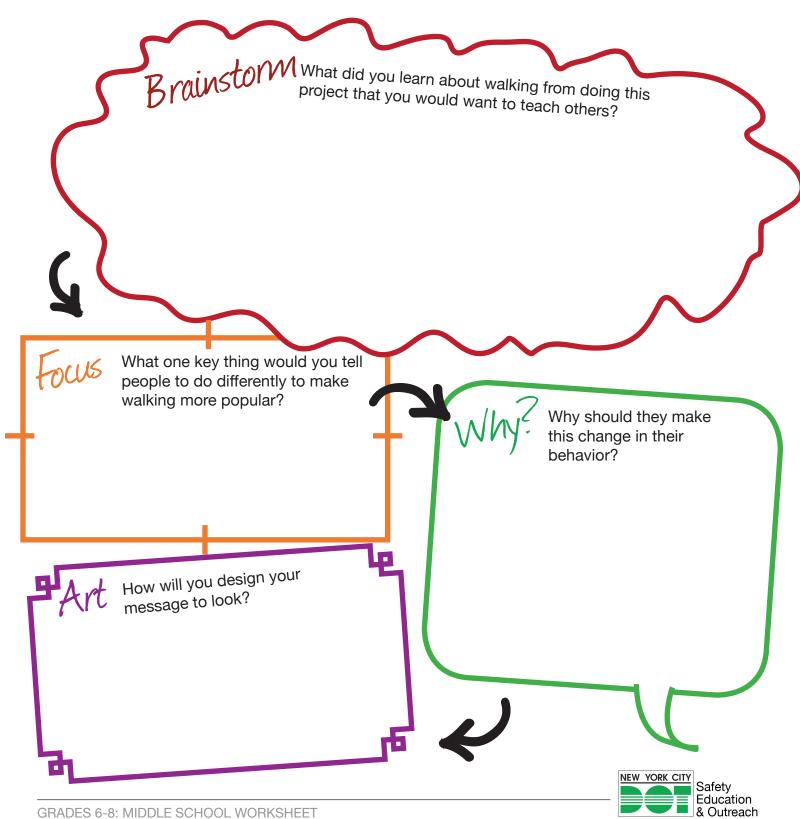
CYCLISTS:	ofo
What could they do differently?	

PEDESTRIANS:	
What could they do differently?	



Date: Name:

(4) PSA Planning





School:	Class:
School:	Class:

Name: Date:

(5) How Many Steps?

How many steps (on average) do you take in a day?

7,500

How many steps (on average) do you take in a lifetime?

216,262,500

How many steps does it take to walk a mile?

2,000

(range 1.900-2.400)

How many steps does it take to walk a block?

200

ACTIVITY (STEPS PER MINUTE)

Basketball (shooting baskets)	136
Basketball game	242
Bicycling	121 – 364
Billiards/pool	76
Bowling	91
Cooking	61
Football	242
Frisbee	91
Gymnastics	121
Health club	167
Hiking	182
Hockey (field/ice)	242
Ice skating	212
Inline skating	364
Jogging	212
Jump rope	303
Roller skating	212

Rowing machine	212
Rugby	303
Running	242
(5mph – 12 minute	miles)
Shopping	70
Skateboarding	152
Skiing	182 - 242
Ski mobiling	212
Sledding	212
Soccer	212
Softball	152
Stretching, yoga	76
Swimming	182 - 303
Tennis	212
Weight lifting	121 – 182
Wrestling	182

Estimate how many steps it takes to walk around your school:







Health

- On average, people who walk or bike to work or school get more than an hour of exercise daily.
 They also lower their risk of heart disease and diabetes.
- People that live in areas with more high quality sidewalks and bike lanes are more likely to be active and less likely to be overweight.
- New Yorkers who take public transportation for most of their commute get almost half an hour more daily physical activity than those who use a personal car.
- The highest concentrations of particulate matter are found in areas where traffic density is highest.
 If fewer cars are on the roads, air quality will improve.
- The health benefits of regular physical activity, even in polluted air, outweigh the risks of inactivity.



- Pedestrians are much more vulnerable than car occupants in a crash.
- Driver inattention was cited in at least 1 in 3 crashes resulting in pedestrians seriously injured.
- When it comes to traffic danger, people between ages 5 and 17 and over age 60 are the most at-risk pedestrian groups.
- Children involved in a crash while crossing against the signal are more likely to be seriously injured than an adult struck while crossing against the signal.
- In New York City 3 in 4 serious pedestrian crashes occur at intersections.
- Two-fifths of serious pedestrian crashes occur between 3pm and 9pm.
- Transit riders are 95% safer than people driving in cars.







(6) NYC Walking Facts (continued)

Going Green

- New York is considered one of the greenest cities in the country because so many people use walking, cycling, the subway, and buses to get around town.
- Getting to work, only 23% of New Yorkers drive; the rest take public transit, walk, or bike.
- One in every four transit trips in the US is made in New York.
- New York is considered one of the greenest cities in the country because so many people use walking, cycling, the subway, and buses to get around town.
- Getting to work, only one in four New Yorkers drive; the rest take public transit, walk, or bike.
- One in every four transit trips in the US is made in New York.

- Transportation is the largest single source of air pollution in the United States.
- Walking produces NO pollution
- New York's mass transit system moves approximately 40% of all people traveling by motorized transportation on a typical weekday (excluding heavy trucks), while resulting in only 12% of transportation CO₂ emissions, and 3% of overall CO₂ emissions.
- Without efforts to limit carbon emissions, the United States could warm 7 to 11 degrees Fahrenheit by the end of the century. Cutting emissions could hold that increase to just 4 to 6.5 degrees Fahrenheit.





School:	Class:

(7) Street Survey

Name:

1 Have you ever been hit by a car?

Yes No

Do you know someone who has been hit by a car?

Yes No

Have you ever had a near-miss or another dangerous interaction with a car?

Yes No

Do you think it's easy for you to travel to and from school?

Yes No

How do you usually get to and from school?

car

public transit (bus or subway)

school bus

bike

walking

other

Which one do you think the streets are designed for? Circle all that apply.

Date:

cars

trucks

buses

bikes

pedestrians

other

If there is a crash and a pedestrian is hit by a car, who is most likely at fault?

the driver of the car

the pedestrian

the designer of the street





(8) Redesign Your Street

Beautification Measures (tree pits, flowers, how does the block look?)







For Pedestrians (crosswalks, signs, sidewalks, curbs)

Car Traffic Control and Calming (traffic

signals, signs, speed humps)



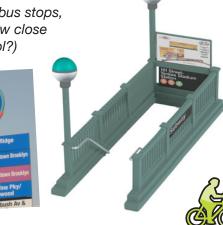




Public Transportation (bus stops, subway entrances, how close are these to the school?)



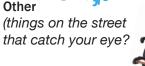








Other







(Are people on bikes able to get around easily and safely?)









Class: Date:

ideas and come up with your own. so pedestrians could cross safely? Fill out the street scene with safety dangers. Use the design elements outlined on the previous page for would you design this intersection If you were an urban planner, how enhancements and potential

NEW YORK CITY Safety Education & Outreach



School:	Class:
Name:	Date:

(9) Outline Your Letter

Use this outline to plan your letter to an elected official.

TOPIC
What subject will you write about?
DUDDOOF
PURPOSE
What improvements you will ask for?
LETTER RECIPIENT
Who will you write to? If you don't know the official to contact, ask your teacher for help.
Now write notes for yourself about what information you will include in your introduction,
2-3 body paragraphs, and conclusion:
INTRODUCTION





(9) Outline Your Letter (continued)

BODY PARAGRAPH #1	
BODY PARAGRAPH #2	
BODY PARAGRAPH #3	
CONCLUSION	
	NEW YORK CITY