

Applying the NYC Noise Code

Description:

This lesson will have students gain a better understanding of the New York City Noise Code. They will use several sources to learn about the history of the noise code, what the noise code includes, and what to do if they have a noise issue. Additionally, students will study a hypothetical noise problem and be assigned roles of different stakeholders to research potential mitigation strategies. Students will decide the best method to mitigate noise pollution and present their findings to the class.

Objectives:

- Analyze the New York City Noise Code and learn about its history
- Research noise pollution mitigation strategies
- Identify the benefits and disadvantages of each mitigation strategy
- Present a noise mitigation proposal in a town hall style and develop public speaking skills.

Vocabulary:

Civics, cost-benefit analysis, mitigation, noise, noise code, noise pollution, ordinance, stakeholder

Materials:

- NYC Noise Code Summary Guide
- <u>NYC Noise Code Teacher Guide</u>
- Computer access

Background Information:

In the United States, there is no universal Noise Code. This allows municipalities such as New York City to create their own unique noise code regulations. In New York City, the Noise Code is comprehensive, including regulations on the acceptable sound levels for construction, music venues, and even ice-cream trucks.

In 1936, the first noise bill became law in New York City. It banned the use of loud instruments and speakers from 11:00 pm to 7:00 am and any loud noise near schools, hospitals, and courts. In 2007, Mayor Bloomberg signed a new noise code that would change the existing code to better reduce noise as the city modernized and faced new issues. Some of the categories included in the New York City Noise Code are construction, commercial music, motor vehicles, and audio devices. To date, the most common complaints have been about disruptive music or parties; disturbances from banging or pounding; noise made by people, such as loud talking or loud television; and construction projects.

Other cities have created their own noise regulations, often specific to the common complaints in their communities. For example, the city of Detroit has specific laws regarding boat whistles and engines whereas that would not be necessary to include for an inland city like Dallas. There is no "one-size-fits-all" solution to reducing noise in large cities.

To compare the effectiveness of different mitigation strategies, analysts could conduct a cost-benefit analysis. A cost-benefit analysis compares the pros and cons of each solution to determine the best solution to a problem. However, the cost-benefit analysis must consider all variables. Some variables to consider include the number of people exposed, the severity of the noise, the size of the area, and how expensive the mitigation strategy would be to implement. For example, installing noise reducing pavement would be an effective way to



decrease noise in a small area; however, it is costly compared to building a noise blocking wall that could potentially benefit more people. The most appropriate mitigation strategies can be identified through a cost-benefit analysis.

Method:

Part I: Understanding the NYC Noise Code

- Prior to the lesson, review the <u>NYC Noise</u> <u>Code Teacher Guide</u> and prepare copies of the <u>NYC Noise Code Summary Guide</u> for students. Also encourage students to refer to the NYC noise code website for more information.
- Students should start by reading the New York Times article <u>New York's War</u> <u>on Noise</u> to get an understanding of the history of noise prevention in New York City.
- Then, read "Where New Yorkers Can't <u>Stand the Racket</u>" to learn more about noise complaints spatially in NYC. For more insight into this data, access the <u>interactive map here</u> or visit <u>NYC</u> <u>OpenData</u> for a look at 311 complaints. Have students explore the tool to better understand noise and noise complaints in their neighborhoods and around the rest of the city.
 - What were some observations you made that surprised you?
 - o Did you notice any patterns?
- As a class, discuss previous experiences with noise in their neighborhoods. "What did you do if the noise became too much to handle? Have you ever submitted a noise complaint?"
- Have students answer a series of questions about the Noise Code, for example:
 - What type of categories are included in the noise code?
 - Who do you contact if you are having an issue with noise?

- What are some ways residents can mitigate noise in their homes and neighborhood?
- What are the days and hours when construction is permitted?
- Now that students have had a chance to dig deeper into the NYC Noise Code, they will use their newly acquired knowledge to address a noise issue through a mock Town Hall.

Part II: Mitigating Noise in NYC: Mock Town Hall

- Students will be introduced to the idea of noise pollution and stakeholders. Define stakeholder, mitigation, and noise pollution. As a class, identify the stakeholders and discuss how different stakeholders may be affected by noise pollution.
- Students should then apply what they have learned about the NYC Noise Code and their own experiences to address and provide solutions to the scenario described below.
- Read the problem as a class.
 - Problem: Construction has recently begun on a new highway in your borough, passing through several small communities. The highway will bring revenue to these communities by allowing easier access for visitors and commuters, new housing and business opportunities, and faster delivery of goods. However, the highway is also expected to significantly increase noise in the area. The noise will not only affect the residents that live there but other stakeholders as well. Business owners, local elected officials, environmental groups, government workers, and residents must compromise to find the best solution to move forward.
- Students will be split into five groups representing each stakeholder.
 - Residents: We have noticed that the construction noise has negatively affected our health and



have expressed concern over the constant noise that vehicle traffic will bring to the neighborhood. We are more stressed, more tired, and less focused at work and school. We want the fastest solution to limit noise in the area.

- Local elected officials: We have \cap become aware of the concerns in district. We've our heard complaints from many of our constituents about the highway noise. However, this project provides transportation access for the area and revenue for local businesses. We want a solution that keeps our constituents happy but does not stop the construction of the highway.
- Business owners: We welcome 0 new development in the area. The highway will allow easy access to the community and faster delivery of goods. Unfortunately, we have noticed that business has suffered a bit while the highway is under construction and have some concerns about future noise issues. Many customers have complained that it's too loud to enjoy restaurants and other small businesses. We want the noise to be reduced but we do not want to pay for an expensive option.
- Environmental groups: We have 0 noticed that the highway project has caused excessive noise in the area, among several other environmental concerns. Noise from the highway has caused harm to local wildlife including an endangered bird species. We want solution with the least а environmental harm and that will significantly decrease noise for wildlife.
- **Government workers:** Noise inspectors have recognized that

the noise from the highway construction violates the City's Noise Code. Health inspectors are also concerned with the long-term effects of vehicle noise on the health of residents. We propose implementing a solution that aligns with the City's Noise Code and helps the most people as possible.

- Students will research and choose a strategy that best meets the needs of their stakeholders. Students will compare the benefits and disadvantages for each mitigation strategy. Example mitigation strategies include noise barriers, noise-reducing pavements, vegetation buffers, and noise blocking windows. The <u>Residential Noise Control Guidance Sheet</u> can be a valuable resource in determining the best noise mitigation strategy for stakeholders.
- Students will conduct a mock town hall debate. Acting as the stakeholders, students will present their concerns and proposals. Provide groups with a set amount of time to present and take questions from other stakeholders.
- At the end of the debate, students will vote on the best noise mitigation policy when considering the views of all the stakeholders.

Discussion:

- Do you think the New York City Noise Code is effective? Are there some aspects you would like to change about the current code?
- Why is it important to update the Noise Code over time?
- How does New York City currently enforce noise violations?
 - Is this the most effective way to enforce noise? If not, what are some more effective ways to regulate noise?



- How can we help regulate noise in New York City? How can you report noise complaints in New York City?
- Why is it important to have noise ordinances for large cities? Why are some noise ordinances different?
- Based on features included in other city's noise ordinances, what are some additional aspects you would like to see included in New York City's noise code?

Extension:

- Continue exploring and discussing different sound scenarios about the NYC Noise Code by using the <u>Sound Scenarios Worksheet</u>.
- Using what was discussed in the lesson, have students create defined noise code rules that they would like to implement in an updated noise code.
- Research and explore the legislative process for laws and regulations in NYC.
 Discuss how local policies are made and updated over time.
- Hold or attend a city council hearing to learn about NYC's legislative process.
 - Speak to a local elected official for a personal perspective on this process.
- Challenge students to create a noise code for their school.
 - What would they like to include?
- Explore the <u>European Environment Agency</u> website to research the noise codes of European countries.
 - How does New York City's noise code compare to noise regulations outside of the U.S.?
- Research and explore noise codes for other cities.
 - How do they compare? Are there any major differences?

- Ask students to identify the problem in the article <u>"DEP Pilot Program uses Sound</u> <u>Sensors to catch loud cars in NYC. S.I. police</u> <u>voice concerns.</u>" Discuss how solutions can have secondary effects.
- For high school and above: Have students research the costs of different mitigation strategies. Students can then develop a cost-benefit analysis. Use this link on <u>costbenefit analysis</u> to help students understand the concept better. Set a maximum price that stakeholders are willing to pay.

NYC Department of Environmental Protection

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