

Classroom Resources

- [A Pocket Guide to Soundwalking](#)
Plan an excursion to listen to the environment.
- [Carolina® Human Ear Model](#)
A one-piece model showing 21 external and internal structures and major vasculature.
- [Dangerous Decibels](#)
Interactive games about hearing loss and sound and noise.
- [Arduino Science Journal](#)
Free STEM lessons use technology to document science experiments, including “Getting Started with Sound.”
- [Interactive Ear](#)
A simulation of human hearing showing the outer, middle, and inner ear.
- [NYC Department of Environmental Protection Education](#)
Comprehensive modules containing lessons, student activities, vocabulary, links to other resources, and standards alignment.
- [STEM Learning Educator Guide: Seeing Sound](#)
NASA-developed lessons on the physics of sound.
- [Anatomy of the Ear](#)
Wisc-Online developed this resource to examine the anatomy of the human ear.

Studies & Online Resources

- [Finding the Quiet City](#)
An interactive map of quiet spots in New York City
- [Listen Up! Protect Your Hearing](#)
CDC resource for young people to learn about noise and hearing loss
- [London’s Civil Aviation Authority 2016](#)
This study examines evidence on attitudes to aviation noise around airports in England.
- [Mapping 311 Noise Complaints in 2015](#)
Interactive mapping tool of noise complaints made by New Yorkers to 311 in 2015

- [Mayor’s Citywide Performance Mapping](#)
A collection of critical performance measures from city agencies.
- [Mayor’s Management Report](#)
The performance of city agencies, measuring their effective delivery of services.
- [Metropolitan Transit Authority Special Reports](#)
Special MTA reports, including Annual Noise Reduction Reports
- [National Transportation Noise Map](#)
Analyze road and aviation noise in the United States.
- [New York City Noise Code](#)
Research the NYC Noise Code, noise investigations, and other noise issues.
- [New York City Noise Code Summary Guide](#)
Summary of the NYC Noise Code, including background on noise.
- [New York’s War on Noise](#)
A New York Times collection of noise related media.
- [NYC Open Data](#)
A fully searchable database of important government information, including noise complaints.
- [NOAA Cetacean & Sound Mapping](#)
National Ocean and Atmospheric Administration project created to map underwater noise pollution and carry out the Ocean Noise Strategy.
- [Noise Code for Construction](#)
A checklist for construction projects.
- [Ocean Soundscape Infographic](#)
A visual aid depicting anthropogenic and natural sources of noise pollution in marine environments.
- [Residential Noise Control Guidance Sheet](#)
Guidance for New Yorkers looking to minimize sound in their residential spaces.
- [Sounds of New York City \(SONYC\)](#)
A New York University research initiative, citizen scientists monitor, analyze, and help mitigate urban noise pollution.
- [The Roaring Twenties](#)
An interactive exploration of the historical soundscape of New York City.

- [The Underground Sound Project](#)
Listen to some of the sounds of New York from the world underneath our feet.
- [US Dept. of Labor Occupational Safety & Health](#)
Ensures safe and healthful working conditions by providing training, outreach, and education.
- [Wave Interference](#)
Digitally observe how different materials interact with soundwaves.
- [WebTrak](#)
A Port Authority interactive program that shows the relationship between aircraft traffic and sound.
- [2010 Transit Noise Study & 2010 Airport Noise Study](#)
Strategies and recommendations for addressing transit noise in New York City.

Noise News Articles

Food, Restaurant, and Bar Noise

- [“Noise Complaints at 9th Ave Bar Lead to ‘Screaming’ Match with Neighbors”](#)
- [“Those Ice Cream Truck Jingles are keeping New Yorkers Up at Night”](#)
- [“To some a delightful diversion, to others a noisy nuisance”](#)

Community Noise

- [“As Concerts Return to Stadium, So Do Noise Complaints”](#)
- [“Call 311: These are the Noisiest Streets in NYC, According to New Yorkers”](#)
- [“Exploring the Hilarious Noise Complaints of 1930s New York”](#)
- [“NYC Noise Complaints by Karl Sluis, 2013”](#)
- [“Researchers are Recording New York to Make it Quieter”](#)
- [“Unhealthy Levels of Noise Outside Some City Schools”](#)
- [“Where New Yorkers Can’t Stand the Racket”](#)

Noise and Health

- [“Exposure to Traffic Noise May Raise Your Risk of Obesity”](#)
- [“How City Noise is Slowly Killing You”](#)
- [“How Do I Prevent Hearing Loss from Loud Noise?”](#)

- [“Is Noise Pollution the Next Big Public-Health Crisis?”](#)
- [“Noise Causes Stress. Here’s Why You Need to Seek Out Some Silence”](#)
- [“Noise Can Adversely Affect Human Health and Quality of Life”](#)
- [“Noise Exposure is Becoming ‘The New Secondhand Smoke’”](#)
- [“Tinnitus and the Deafening Problem of Noise Pollution”](#)
- [“The Noise All Around Us That’s Destroying Our Hearing, Explained”](#)
- [“What are the health effects of noise pollution?”](#)
- [“Why City Noise Is a Serious Health Hazard”](#)

Noise and the Environment

- [“How the Sounds around You Could Be A Harbinger of Climate Change”](#)
- [“Listening to Whale Migration Reveals A Sea of Noise Pollution, Too”](#)
- [Noise Pollution and the Environment](#)
- [“Noise Pollution Peaks All Time High In The U.S.: The Most Protected Natural Zones Are Unsafe”](#)
- [“Sparrows Actually Change Their Tune to Sing Over the Noise of the City”](#)
- [“Underwater Noise Pollution From Busy Shipping Routes Reportedly Causes ‘Deafness’ in Seals”](#)
- [“What are the Effects of Underwater Noise Pollution?”](#)

Vehicles and Transit Noise

- [“DEP pilot program uses sensors to catch loud cars in New York. S.I police voice concerns”](#)
- [“Noisy Helicopters back in NYC Skyline, Residents Complain of ‘Vibrating Apartments’”](#)
- [“NOISY Records Airplane Data, Automatically Logs Complaints”](#)
- [“New York Rolling Out Noise Law, Listening Tech for Souped-Up Speedsters”](#)
- [“New Yorkers Plagued by Airport Noise See Some Relief in New Sound Monitors”](#)
- [“Road Noise: Deadly? Maybe. Annoying? Definitely”](#)
- [“Traffic Noise Might Give You a Heart Attack”](#)

- [“NYC Controller Scott Stringer wants ban on tourism helicopters, says they’re too noisy and don’t help the economy”](#)
- [“Waahh or Wee-oww? That Is The Question”](#)

General Noise

- [“Help Fight Noise Pollution By Identifying These Sound Clips Collected From Urban Sensors”](#)
- [“Interactive Maps That Reveal What Cities Sound Like”](#)
- [“Mapping New York’s Noisiest Neighborhoods”](#)
- [“Researchers Create Sound Shadows”](#)
- [“The Science of Quieter Cities”](#)
- [“The Sounds of New City Circa 1920”](#)
- [“These Scientists Think Peace and Quiet Should Be a Human Right”](#)
- [“Yo, I’m Trying to Sleep Here! New York’s Wonderful Map of Noise”](#)
- [“Muting the City: The History of New York Losing the War on Noise”](#)

Videos & Podcasts

- [A Sweeter-Sounding Jackhammer](#)
- [Brain POP](#)
- [Crash Course Physics: Sound](#)
- [How Hearing Works](#)
- [How Noise Pollution Is Ruining Our Health](#)
- [How Human Noise Affects Ocean Habitats](#)
- [Logarithmic Scale Video](#)
- [Listen Up: What You Need to Know About Ocean Noise](#)
- [Noise in NYC](#)
- [Noise Pollution Hard On Heart As Well As Ears](#)
- [Noise Reduction for Echopolis](#)
- [Smarty Plants](#)
- [Teachable Moment: Sound Waves](#)
- [Tuning Fork](#)
- [Understanding Vibration and Pitch](#)
- [Underwater noise - the overlooked catastrophe](#)
- [Vox – Is city noise making us sick?](#)

Sound and Noise Reading List

Picture Books (Grades K and up)

- [The Very Quiet Cricket](#) by Eric Carle
- [The Hullabaloo ABC](#) by Beverly Cleary
- [Slop Goes the Soup: A Noisy Warthog Word Book](#) by Pamela Duncan
- [Yip! Snap! Yap!](#) by Charles Fuge
- [Quiet Down, Loud Town!](#) by Alastair Heim
- [Sounds All Around: The Science of How Sound Works](#) by Susan Hughes
- [A Sound Like Someone Trying Not to Make a Sound](#) by John Irving
- [Too Much Noise](#) by Ann McGovern
- [Horton Hears a Who](#) by Dr. Seuss
- [Mr. Brown Can Moo! Can You?](#) by Dr. Seuss
- [Shhh...: A Book About Hearing \(The Amazing Body: The Five Senses\)](#) by Dana Meachen Rau
- [Listening Walk](#) by Paul Showers
- [Song of the Whooping Crane](#) by Eileen Spinelli

Young and Young Adult Readers (Grades 4 and up)

Non-Fiction

- [Perk up Your Ears](#) by Vicki Cobb
- [The Sense of Hearing](#) by Elaine Landau
- [The Science of Sound and Music](#) by Shar Levine and Leslie Johnstone
- [What Makes Different Sounds?](#) by Lawrence F. Lowery
- [Sound Waves \(Energy in Action\)](#) by Ian F. Mahaney
- [Sounds All Around](#) by Wendy Pfeffer
- [Sound: Shhh . . . Bang . . . POP . . . BOOM!](#) by Romana Romanyshyn
- [Sound: Loud, Soft, High, and Low \(Amazing Science\)](#) by Natalie M. Rosinsky
- [The Science of Noise](#) by Lynne Wright

Fiction

- [City Noise](#) by Karla Kuskin
- [A Quiet Place](#) by Douglas Wood

Poetry

- [Noise Day by Shel Silverstein](#)
- [The Poetry of Science](#)
- [The Sound of Trees by Robert Frost](#)
- [The Sound of the Sun by George Bradley](#)
- [The Sound of One Fork by Minnie Bruce Pratt](#)

Adult Books

Non-Fiction

- [Sonic Wonderland: A Scientific Odyssey of Sound by Trevor Cox](#)
- [The Sound Book: The Science of the Sonic Wonders of the World by Trevor Cox](#)
- [Sound and Noise: A Listener's Guide to Everyday Life by Marcia Jenneth](#)
- [One Square Inch of Silence by Gordon Hempton and John Grossman](#)
- [Noise: A Human History of Sound and Listening by David Hendy](#)
- [The Universal Sense: How Hearing Shapes the Mind by Seth S. Horowitz](#)
- [The Unwanted Sound of Everything We Want: A Book About Noise by Garret Keizer](#)
- [The Great Animal Orchestra: Finding the Origins of Music in the World's Wild Places by Bernie Krause](#)
- [In Pursuit of Silence: Listening for Meaning in a World of Noise by George Prochnik](#)
- [The Soundscape: Our Sonic Environment and the Tuning of the World by R. Murray Schafer](#)
- [Why Noise Matters: A Worldwide Perspective on the Problems, Policies and Solutions by John Stewart, with Francis McManus, Nigel Rogers, Val Weedon, and Arline Bronzaft](#)
- [Noise Matters: The Evolution of Communication by R. Haven Wiley](#)
- [Central Park in the Dark by Marie Winn](#)

Fiction

- [Revolt of the Moles by Alan Tongret](#)

Sound Measuring Applications

- [Arduino Science Journal](#)
A cell phone application that can be used as a sound meter to take sound measurements. Available on iOS and Google Play.
- [CDC NIOSH](#)
A professional sound measuring app to help workers be aware of noise in their environment. Only available on iOS.
- [Data Logging Sound Level Meter](#)
A cell phone application for use in the classroom.
- [Hush City App](#)
Become part of a citizen science research project to map and evaluate everyday quiet areas.
- [Online Tone Generator](#)
Digital tone generators offer a treasure trove of tools for exploring the nature of sound.

Additional Organizations

- [American Academy of Otolaryngology](#)
- [American Museum of Natural History](#)
- [Brooklyn Botanic Garden](#)
- [Brooklyn Bridge Park Conservancy](#)
- [Center for Disease Control and Prevention](#)
- [Center for Hearing and Communication](#)
- [Children's Hearing Institute](#)
- [Citygram NYC Sound Mapping from NYU](#)
- [Cornell Lab of Ornithology](#)
- [Environmental Protection Agency](#)
- [Grow NYC](#)
- [Hearing Education and Awareness for Rockers](#)
- [Hearing Health Foundation](#)
- [National Hearing Conservation Association](#)
- [National Institute for Occupational Safety and Health](#)
- [New York Hall of Science](#)
- [NYS Department of Environmental Conservation](#)
- [NYU Sounds of New York City \(SONYC\)](#)
- [World Health Organization](#)

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For more information visit www.nyc.gov/dep