

Teacher's Guide April: Flooding

Staying Safe When Waters Rise

You don't need to live or work near the water to be affected by flooding. Flood damage can be caused by water main breaks, storms, or even sewer backups.

A flash flood is sudden flooding that is the effect of rapidly rising floodwaters. Flash floods usually occur with no warning within several hours of intense rainfall from slow moving thunderstorms. Flash floods are the number one weather-related killer in the U.S., with nearly 80% of flash flood fatalities involving cars.

With the city's proximity to the Atlantic Ocean, we can also be affected by coastal flooding, which involves water flowing from the ocean into coastal areas.

These are the different flood watches and warnings issued by the National Weather Service:

- **Flood Watch:** An overflow of water is possible for your area.
- **Flash Flood Watch:** Flash flooding is possible in or close to the watch area. Flash Flood Watches can be put into effect for as long as 12 hours as heavy rains move across an area.
- **Flood Warning:** Flooding has already occurred in the warning area.
- **Flash Flood Warning:** Flash flooding has already occurred in the warning area. A Flash Flood Warning can also be issued as a result of substantial rainfall, a dam failure, or thawing snow.

Let's get ready and stay safe when flood waters hit!

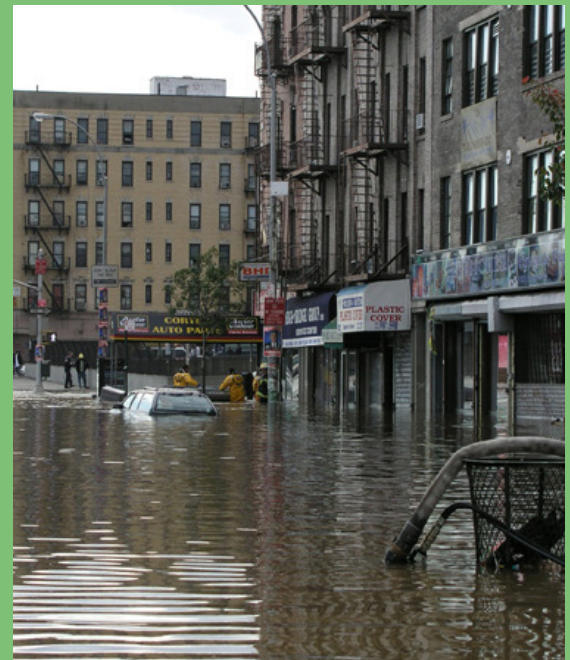


Department of Education
Office of Emergency Management



What to do if flooding occurs

- If you're caught indoors, move to a higher floor. If possible, take warm clothing, a flashlight, and a portable radio with you. Do not try to swim to safety.
- If you're outdoors, don't walk or drive through flooded areas. Just six inches of moving water can knock you over; one to two feet of water can sweep away a vehicle.
- If your car stalls, abandon it as soon as possible. Floodwater can rise rapidly and sweep away your car with you inside.
- Before entering a building in the affected area, check for structural damage. Do not turn on any lights or electrical appliances until an electrician has verified that they are safe to use.



Reinforce the flood-safety message and build skills across the curriculum with these simple activities:



Language Arts

What is a nor'easter? Have students investigate this term and write about its implications for our area and how it could relate to flooding. Ask students, "Do nor'easters occur only at one time of year?"



Math

Next time a springtime storm is headed your way, have your students make a rain gauge by placing a clear plastic jar outside in an open area. Once the rain is done, measure how many inches of rain fell. Follow up by investigating average precipitation based on the time of year and find out if your area is on track to meet that average.



Social Studies

Before a flood, it is important for students and their families to develop disaster plans. Get that process rolling by asking each student to draw a basic map showing the safest route from his or her home to high ground in case of flooding. Encourage students to take this information home and to meet with their families to review and refine the route. Then encourage students and families to walk the route together.



Science

Have your students ever wondered why some raindrops are just sprinkles and others are bigger, hitting on the ground with a splat? Investigate these questions. Students will be surprised to learn that small raindrops are shaped like spheres, but larger raindrops are shaped more like the top of a hamburger bun!

To Learn More:

NYC Office of Emergency Management,
www.NYC.gov/oem

OEM Flood brochure, http://www.nyc.gov/html/oem/downloads/pdf/flooding_guide.pdf

OEM Flood resources, <http://www.nyc.gov/html/oem/html/hazards/flooding.shtml>

OEM on Facebook, www.facebook.com/NYCEmergencymanagement

OEM on Twitter, [@nycoem](https://twitter.com/nycoem)

Notify NYC, Register for emergency notifications by visiting NYC.gov/notifynyc, calling 311, or following [@NotifyNYC](https://twitter.com/NotifyNYC) on Twitter

FEMA and the National Flood Insurance Program,
Floodsmart.gov

